



# STRING ENSEMBLE

— SYMPHONY SERIES —

Manual



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Software version: 1.0 (09/2015)

Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

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# 1 Welcome to the SYMPHONY SERIES

Thank you for purchasing SYMPHONY SERIES STRING ENSEMBLE. This document will give you information about the library, as well as step-by-step instructions and advice on how to achieve the best results with it.

We hope that you will enjoy using the SYMPHONY SERIES products.

## 1.1 Manual Conventions

This document uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing the following notes let you see what kind of information can be expected:



Whenever this exclamation mark icon appears, you should read the corresponding note carefully and follow the instructions and hints given there if applicable.



This light bulb icon indicates that a note contains useful extra information. This information may often help you to solve a task more efficiently, but does not necessarily apply to the setup or operating systems you are using; however, it's always worth a look.

Furthermore, the following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) in the software and paths to locations on your hard disk or other storage devices is printed in *italics*.
  - Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) in the software is printed in **blue**. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
  - Important names and concepts are printed in **bold**.
  - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Enter]").
- Single instructions are introduced by this play button type arrow.
- Results of actions are introduced by this smaller arrow.

## Naming Convention

Throughout this document, we will refer to SYMPHONY SERIES STRING ENSEMBLE as just STRING ENSEMBLE.

The features described in this document are identical for KONTAKT and KONTAKT PLAYER. We will refer to both as KONTAKT.

## 1.2 About this Document

This document was written in a way that allows you to access information out of order. While the topics are structured to guide you through the features and usage of STRING ENSEMBLE topic by topic, you can skip ahead at any time.

Jump right in the midst of the document to a topic you're interested in. You shouldn't have to look up related information to be able to follow any of the workflow tutorials. All relevant information is given as part of each description.

## 1.3 About the SYMPHONY SERIES of Products

SYMPHONY SERIES STRING ENSEMBLE is part of the SYMPHONY SERIES of KONTAKT Instruments. This series supplies composers with a comprehensive tool set for creating highly realistic orchestral productions with an expansive sound full of character.

STRING ENSEMBLE allows you to use a production-ready **STEREO** mix or create your own mix from **CLOSE**, **MID** and **FAR** microphone positions. On the dedicated Mixer page, a parametric **EQ**, convolution **REVERB**, and **COMPRESSION** effects let you adjust the sound to suit any project you're working on.

You can switch between articulations in real time utilizing freely assignable **Key Switches** or **MIDI CCs**. An Auto Divisi feature distributes voices to different sub sections. Users of KOMPLETE KONTROL S-Series keyboards can use pre-assigned performance controls to .



## 2 Using Your Product in KONTAKT and KONTAKT PLAYER

This is a short introduction in case STRING ENSEMBLE is the first KONTAKT product you use. For more in-depth information, please refer to the KONTAKT or KONTAKT PLAYER documentation.

### 2.1 About KONTAKT and KONTAKT PLAYER

**KONTAKT** is Native Instruments' industry standard software sampler. It supports opening any (commercial or free) KONTAKT Library, as well as conversion of a great number of sample libraries created for hardware samplers from companies such as AKAI, EMU or Kurzweil or for software samplers like GIGASTUDIO, EXS24 and others.

You can also work with your own sample content and apply the included audio effects. You can even use the built-in script programming language to build elaborate instruments of your own.

**KONTAKT PLAYER** is a free sample Instrument player which is included in the purchase of a third-party **KONTAKT PLAYER** Library or a **KONTAKT** Library product from Native Instruments. It allows you to demo the extended feature set of KONTAKT, but you can not create your own sample instruments or edit existing KONTAKT Instruments with it.

### 2.2 Accessing the Library Browser

Both KONTAKT and KONTAKT PLAYER allow you to open any licensed third-party Library as well as **Library** products sold by Native Instruments. After installing a Library, it is automatically added to the Library Browser.

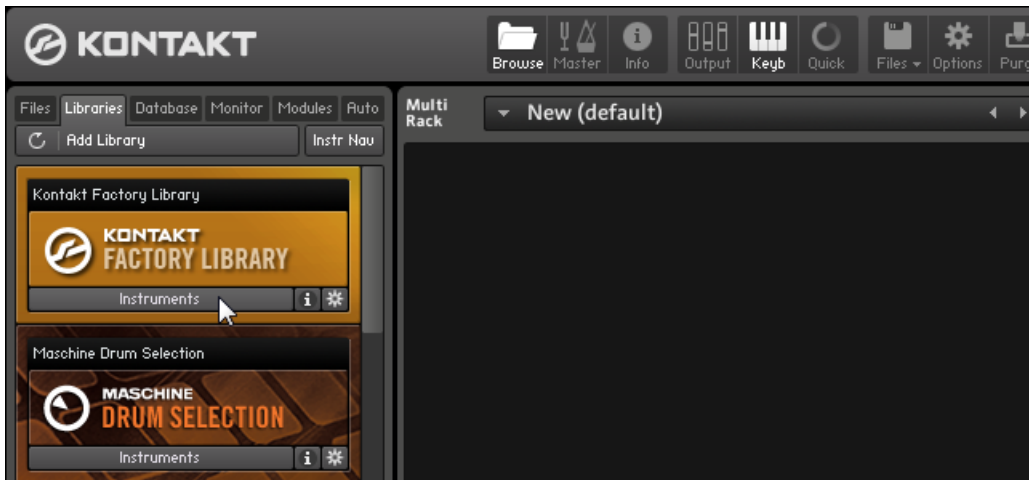
To open the overview of your installed Libraries:

1. Launch KONTAKT.
2. In the KONTAKT header, make sure the [Browse](#) button is activated to show the Library Browser.

3. If it isn't highlighted, click the [Browse](#) button to open the Library Browser.



- The Library Browser will open, giving you an overview of all [Libraries](#) installed on your computer.



Sample Libraries in the Library Browser

## 2.3 Adding a Library to the Library Browser

If, for some reason, a Library doesn't appear in the Library Browser after installation, you can add it manually:

1. Launch KONTAKT.
2. In the KONTAKT header, make sure the [Browse](#) button is activated to show the Library Browser.
3. If it isn't highlighted, click the [Browse](#) button to open the Library Browser.



4. In the left-hand Library Browser, make sure the [Libraries](#) tab is selected.
5. Here, click the [Add Library](#) button. A file selector dialog will open.



6. Select the Library's location on your hard disk and confirm.
- The Library will be added to the Library Browser, represented by a Library Panel with its own artwork.



A Library's panel with artwork



Only KONTAKT PLAYER Library products from external developers and KONTAKT Library products created by Native Instruments will appear in the Library Browser.

## 2.4 Activating a Library in KONTAKT

Libraries which are licensed for use with KONTAKT and KONTAKT PLAYER employ a copy protection mechanism. Newly installed products can be **activated** either with the **Service Center** application which is automatically installed alongside KONTAKT, or directly **from within KONTAKT**.



An internet connection is required for product activation.

This is how you activate a Library from inside KONTAKT:

1. Launch KONTAKT.
2. In the KONTAKT header, make sure the [Browse](#) button is activated to show the Library Browser.

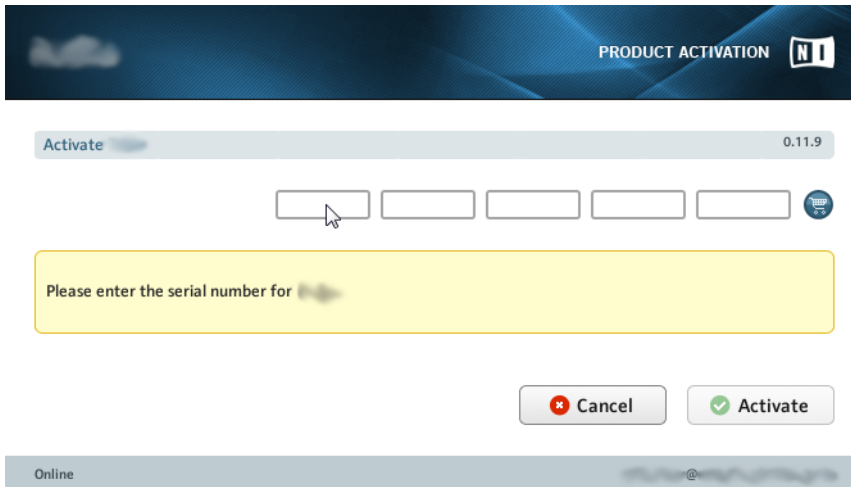
3. If it isn't highlighted, click the [Browse](#) button to open the Library Browser.



4. In the left hand Library Browser, look for the Library which is currently not activated.  
5. Click the [Activate](#) button.



6. The [PRODUCT ACTIVATION](#) dialog will open.



7. Enter your product serial number and click [Activate](#).  
→ KONTAKT will register the serial and the product in your user account and activate it on your computer.

## 2.5 Loading an Instrument

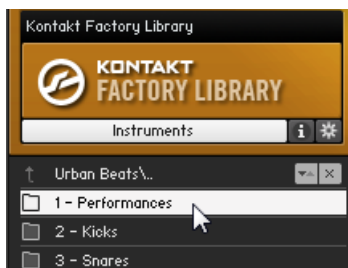
1. Launch KONTAKT.
2. In the KONTAKT header, make sure the [Browse](#) button is activated to show the Library Browser.
3. If it isn't highlighted, click the [Browse](#) button to open the Library Browser.



4. In the left hand Library Browser, click on the Library's [Instruments](#) button.



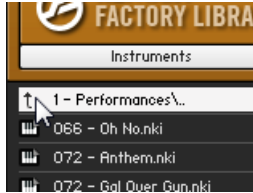
→ An Instruments Browser expands below the artwork. Use this browser to navigate the Instruments included in your Library.



Browsing the folder structure

The Browser works similar to Finder (OS X) and the Explorer (Windows).

- ▶ Double-click a folder to navigate into it.
- ▶ Double-click the up-arrow to navigate out of the current folder.



- ▶ Double-click an Instrument name (e.g. [Oh No.nki](#)) to load that Instrument in KONTAKT.

## 2.6 Getting to Know the User Interface Controls

### Knobs

Knobs are rotary controls which mimic potentiometers in the physical world. They usually sport a label which describes the parameter the knob controls. When turning the knob, the label will display the current value.



Two knobs

- ▶ To **increase** a value, click the knob and drag upwards.
- ▶ To **decrease** a value, click the knob and drag downwards.



Some parameters can be adjusted in coarse and fine increments. Press the [Shift] key on your keyboard while dragging for fine adjustments.



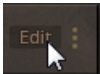
In order to reset a parameter to its default value, press the [Ctrl] key (Windows) or the [Cmd] key (OS X) and click on the corresponding knob, fader or slider.

## Buttons

Buttons allow you to activate and deactivate a feature by clicking it. The active state is visualized by a strong contrast between the text label and the button's background. Inactive buttons show less contrast.



An active button



An inactive button

## Faders

Faders mimic the behavior of faders you may find on a mixing console. These allow you to make fine adjustments to a parameter.



A fader

- ▶ To **increase** a value, click the fader cap and drag upwards.
- ▶ To **decrease** a value, click the fader cap and drag downwards.



Some parameters can be adjusted in coarse and fine increments. Press the [Shift] key on your keyboard while dragging for fine adjustments.



In order to reset a parameter to its default value, press the [Ctrl] key (Windows) or the [Cmd] key (OS X) and click on the corresponding knob, fader or slider.

## Sliders

Sliders work similarly to faders in that they allow very precise control of parameters, but are moved horizontally instead of vertically. They allow you to make fine adjustments to a parameter and are most commonly used for stereo panorama.



A slider

- ▶ To **increase** a value, click the slider cap and drag to the right.
- ▶ To **decrease** a value, click the slider cap and drag to the left.



Some parameters can be adjusted in coarse and fine increments. Press the [Shift] key on your keyboard while dragging for fine adjustments.



In order to reset a parameter to its default value, press the [Ctrl] key (Windows) or the [Cmd] key (OS X) and click on the corresponding knob, fader or slider.

## Drop-Down Menus

Drop-down menus let you select from a list of choices which are initially hidden. They allow for the design of very clean interfaces while offering a great deal of choices when needed.



A drop-down menu

- ▶ Click the downward facing arrow to show the drop-down menu.
- ▶ Click one of the menu entries with the mouse pointer to select it. When you release the mouse button, the menu will collapse.



## Value Fields

Value fields allow you to set numerical values.



A value field

- ▶ To **increase** the value, click and drag upwards.
- ▶ To **decrease** the value, click and drag downwards.

## 2.7 MIDI Setup per Instrument

In order to reduce clutter in your project's structure, you may want to instantiate multiple Instruments within KONTAKT instead of inserting several instances of the KONTAKT plug-in.

To be able to play each Instrument hosted in the same instance of the KONTAKT plug-in independent of the others, you need to configure each Instrument to receive only a specific MIDI Channel and MIDI Input.

This is how you select the MIDI input for a KONTAKT Instrument:

### Loading a KONTAKT Instrument

1. Launch KONTAKT.
2. In the KONTAKT header, make sure the [Browse](#) button is activated to show the Library Browser.
3. If it isn't highlighted, click the [Browse](#) button to open the Library Browser.



4. In the left hand Library Browser, click on the Library's **Instruments** button. An Instruments Browser expands below the artwork.



- Use this browser to navigate the Instruments included in your **KONTAKT** Library.
- Double-click an Instrument name (e.g. **Oh No.nki**) to load that Instrument in KONTAKT.

## Selecting MIDI Input and Channel

In the Instrument Header, you can set up which MIDI Channel this Instrument will listen to.

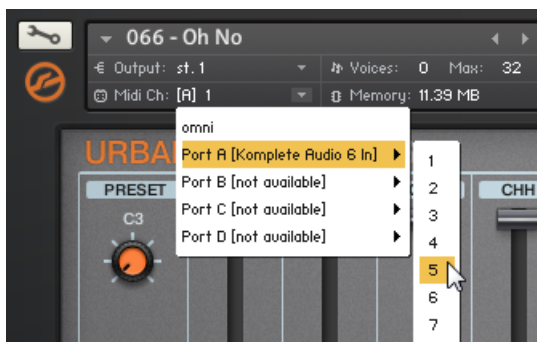
- Click the down arrow in the **MIDI Ch.** field to select a MIDI Input configuration.



Opening the MIDI Input drop-down in the Instrument Header

**Omni:** This Instrument will play all notes it receives, no matter which MIDI Channel they are sent to.

**Port A - Port D:** These refer to MIDI Inputs you configured in KONTAKT's *Options > MIDI*. In more complex MIDI setups, you can choose specific MIDI channels from a specific MIDI Input.



Selecting a MIDI Channel, e.g. channel 5 on the KOMplete AUDIO 6 MIDI IN

## 3 Choosing the Right KONTAKT Instrument

STRING ENSEMBLE ships with a total of five KONTAKT Instruments (**.nki files**). To help you select the right one for your specific task, here is an overview of the included Instruments.

### Four Types of Section Instruments

Four groups of musicians were recorded, with each group playing one type of string instrument: Violins, Violas, Cellos, Basses. Based on these recordings, a dedicated KONTAKT Instrument was created for each group:

- [Violins.nki](#)
- [Violas.nki](#)
- [Cellos.nki](#)
- [Basses.nki](#)

### The Ensemble Instrument

In addition to the four Section Instruments, a single **String Ensemble.nki** Instrument combines all String Sections in one.

## 3.1 Section Instruments

For each orchestral section, STRING ENSEMBLE offers one dedicated Instrument with a comprehensive choice of Articulations for detailed compositional work. Up to eight Articulations per Instrument can be configured and selected. The Section Instruments are the logical choice when you want full control over which part is played by which section and when you need the following features:

- Full set of Articulations.
- True Legato and Portamento.
- Realistic Auto-Divisi.



For every Articulation you assign, the corresponding samples are loaded into your computer's RAM. De-activate every Articulation you don't need to conserve memory.

## 3.2 Ensemble Instrument

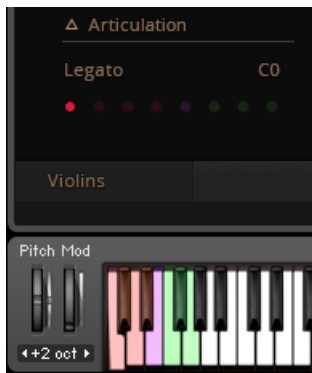
The **Ensemble Instrument** allows you to play **all string sections in one Instrument**, albeit with a limited choice of Articulations. This limitation, on the other hand, considerably reduces memory usage.

The Ensemble Instrument maps the different sections across the keyboard for rapid sketching of musical ideas involving the entire string ensemble. It represents the quickest way of distributing chords across Sections, playing Ensemble swells or massive orchestral stabs.

## 4 Playing **SYMPHONY SERIES** Instruments

### 4.1 Selecting Articulations with Key Switches

When loading one of the KONTAKT Instruments, up to 8 Articulations are assigned to keys which are separate from the tonally playable keys. These are called Key Switches, and are displayed as either red, green or purple keys in KONTAKT's on-screen keyboard and in the small Articulation Indicators beneath the [Articulation](#) label.



Key Switch colors on the on.screen keyboard and the Articulation Indicators



If **STRING ENSEMBLE** is configured to select Articulations by Key Switches, the corresponding keys in KONTAKT's on-screen keyboard are colored according to the respective Articulation category:

Red: Long Articulations

Green: Short Articulations

Purple: String Runs



On **KOMPLETTE KONTROL S-Series** keyboards, the Light Guide LEDs visualize the Key Switches by lighting up in the same color.

To select an Articulation by Key Switch:

1. Load the [Violins.nki](#) KONTAKT Instrument.
2. Press the C0 MIDI note on your MIDI keyboard to select the [Legato](#) Articulation assigned to C0.
3. Play this Articulation using the dark blue range of keys.
4. Press the D0 key on your MIDI keyboard to select the [Tremolo](#) Articulation.
5. Play this Articulation using the dark blue range of keys.



KONTAKT's on-screen keyboard with Key Switches



None of these Articulations are just static musical building blocks. Make a habit of using the Modulation Wheel (MIDI CC 1) to modulate the [Dynamics](#) control to record expressive parts.

In the context of a busy arrangement, these results may already be good enough. In passages which feature the strings more prominently, the discerning listener may still be able to identify details which give away the fact that you didn't record a live orchestral performance.

The solution is to refine the recorded performance in your host software with the provided Performance Controls.

## 4.2 Refining a Recording in Your Host Software

The key to a realistic performance is a combination of three basic methods:

### Switching Between Articulations

Articulations are one of the key ingredients of musical expression. Switching Articulations in **STRING ENSEMBLE** is **the equivalent to writing articulation marks** in music notation. When composing with **STRING ENSEMBLE**, lay out carefully which Articulations you will need.

## Playing Like a String Player

Watch both, the note starts and endings. Depending on the pitch and instrument section, it takes real-life stringed instruments varying amounts of time to build up a steady tone (i.e. [Attack](#)) and to fade out (i.e. [Release](#)). These differences were recorded and are part of the Instruments.

Unlike playing a piano library, to achieve accurate timing, you will have to move some notes ahead of the precise beat by varying amounts, just as real string players compensate by playing slightly ahead.

## Using the Performance Controls

Real time modulation of Performance Controls allows for more realistic performances. Recording automation with the **Mod Wheel** allows you to access the entire dynamic range of the orchestra.



The Mod Wheel (MIDI CC 1) is by default assigned to the Dynamics control and you should always play expressively with the tonal variations the Mod Wheel affords you.

You can achieve even more realistic results by automating slight variations to the [Expression](#), [Attack](#), [Release](#) and [Brightness](#) controls, even if the differences appear subtle at first.

## 4.3 About Using MIDI Controllers

It is highly recommended that you work with a MIDI controller, which lets you perform automation of the Performance Controls in real time. This way, you will **hear the changes immediately**, instead of just drawing automation curves in your host software.

If you load STRING ENSEMBLE inside KOMPLETE KONTROL or MASCHINE 2, the Performance Controls are automatically mapped to the controller's first four knobs. The Dynamics control defaults to the Mod Strip on your KOMPLETE KONTROL S-Series keyboard, or to the Modulation Wheel (MIDI CC 1) if used with a generic controller.

All other parameters are available via your host software's automation system. When selecting the KONTAKT plug-in as the automation target, the Performance Controls are the first four automation parameters.





In order to control the Performance Controls with a generic MIDI control device, please use the mechanism provided by your host to MIDI-control automation parameters.

Cubase: Quick Controls

Logic X: Automation Quick Access

Ableton Live: MIDI Remote

Pro Tools: MIDI CC Automation

## 4.4 Performance Controls

When you load STRING ENSEMBLE, the Performance Controls are the most prominent feature of the Instrument's user interface. These controls are used to refine a performance to achieve very realistic results. Thanks to their unified layout, once you understand what they do in one product from the series, you'll be immediately familiar with all of them.



The main Performance Controls

### 4.4.1 Dynamics

The **Dynamics** control is assigned to the Mod Wheel (MIDI CC 1) by default. It allows you to control the intensity of the Instrument in real-time by seamlessly blending between several layers of samples. At low settings, the instruments are bowed softly and have a slower Attack phase for tender passages. At high settings, the instruments are bowed more forcefully and with a pronounced attack, ideal for fast melodic lines.

The **Dynamics** control allows you to easily automate intensity changes to e.g. transition from leading to supporting passages.

#### 4.4.2 Expression

The **Expression** control allows you to dynamically adjust the section volume. During a performance, you might for example want to increase the volume to help compensate for a drop in level which occurs at low settings of the **Dynamics** knob.

#### 4.4.3 Attack

The **Attack** control allows you to increase the fade-in time per note to simulate realistic variations throughout a passage. When setting the **Attack** time to higher values, notes start to fade in more slowly, giving the notes a more solemn and gentle character.



The Attack and Dynamics controls interact with each other. Even small adjustments to either one of them help create very realistic performances.

#### 4.4.4 Release

The **Release** control applies an additional envelope to the fade-out phase of the notes.

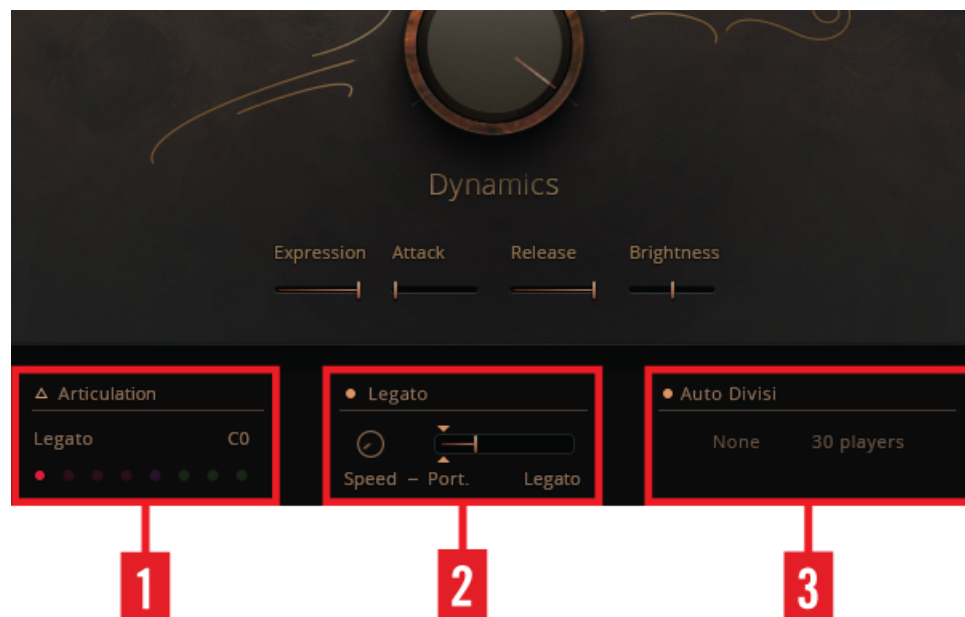
Reducing the Release setting to 0% produces a very "dry" sounding result, which can sometimes make the result sound artificial. However, this can be very useful when playing quick successive notes as it makes each note stand out more.

#### 4.4.5 Brightness

The **Brightness** control allows you to adjust the tonality of the strings. At high settings, the string noise will sound more pronounced, while at low settings, the strings sound mellow and intimate.

## 4.5 Additional Controls

Below the Performance Controls, you'll find the [Articulation](#) selector plus two additional sets of controls. Depending on the selected Articulation, different combinations of these controls are available. This is an overview of all controls you will encounter.



Additional Controls

**(1) Articulation Selector:** This control is visible in every Instrument.

- ▶ Click the [Articulation](#) label to open the [ARTICULATION SLOTS](#) list.
- ▶ Click the Articulation name to assign a different Articulation from the drop-down menu.
- ▶ Click any of the eight Articulation Indicator dots to select a different Articulation.

**(2),(3) Additional Controls:** Depending on which STRING ENSEMBLE Instrument you open and which Articulation type you select, these two fields show different controls.

### 4.5.1 Repetition



Note that the Repetition module is only available for short articulations.

Click the small button to the left of the label to activate or de-activate **Repetition**. A thin ring shows it's inactive, a solid dot means it's active.



Repetition Controls

When **Repetition** is activated, every note you play is automatically repeated in a continuous loop.

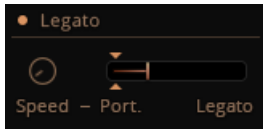
**Time:** Set the speed of repetitions here. Click the button and select a note division value from the drop-down menu.

**Accent:** This parameter offers a number of typical rhythmical patterns which are played back in a very natural and fluent way.

- ▶ Select *No Accents* for no pronounced accentuation.
- ▶ Select *Accent 1 + 3* for accentuation of the first and third note in each repetition.
- ▶ Select *Strong Accent 1 + 3* for a more pronounced accentuation of the first and third note in each repetition.
- ▶ Select *Accent 1* for accentuation of the first note in each repetition.

### 4.5.2 Legato

Click the small button to the left of the label to activate or de-activate **Legato**. A thin ring shows it's inactive, a solid dot means it's active.



Legato Control Panel

**Port/Legato:** With Legato activated, you can control the note transition behavior by means of velocity. Notes played with lower velocity will be connected by a continuous pitch change (Portamento). Notes played with high velocity will be connected but the transition is a sudden change in pitch (Legato).

- Click and drag this slider to set the velocity value below which notes are played Portamento. All notes played with a velocity above this value are played back as Legato.

**Speed:** This slider controls the speed of the Portamento transition.

- Click and drag the knob up for a shorter transition time or down for a long transition.



Depending on the Auto Divisi setting (see [4.5.4, Auto Divisi](#) for details), the Legato algorithm works in a monophonic (Auto Divisi off) or polyphonic way (Auto Divisi on).



Whenever you don't need both, Portamento and Legato, move the slider all the way to the left or to the right. This allows STRING ENSEMBLE to un-load (purge) the samples from RAM automatically.

### 4.5.3 Round Robin

**Round Robin** helps avoid a typical issue associated with repeated playback of a sample. If you play a **Staccato** pattern using the same sample for each note, the result will sound static and artificial. With **Round Robin** activated, there are between 2 and 4 alternative samples available for each note.



Round Robin Indicators

The selection of the next alternative sample in line depends on the selected Round Robin mode:

**Cont.:** The first note triggers the first sample, the next note triggers the second sample and so on until every sample position has been played, then it starts from the beginning.

**Rnd:** The first note selects a sample randomly. The second note selects a random note out of the alternative samples. No sample is played multiple times in a row.

The **Round Robin** indicator visualizes the selection of the alternative samples, the dot indicating the sample position being played back.

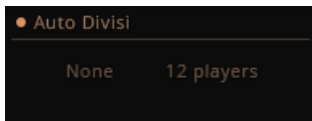
**Slam:** This knob adds more compression for a “bigger” sound to your short articulations. Use it when you want the articulation to sound “larger than life”.



The compression applied by increasing the Slam parameter may boost the noise floor of the recordings.

#### 4.5.4 Auto Divisi

All string sections in STRING ENSEMBLE were recorded in groups of half the section’s size.



Auto Divisi Panel

As the most prominent section, Violins are split into:

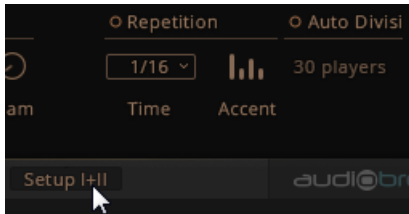
- First Violin A
- First Violin B
- Second Violin A
- Second Violin B
- The other sections are split into part A and B.

With Auto Divisi activated, you can conveniently play polyphonic legato lines, chords and phrases while your string section is automatically split into the required number of Divisi sections to maintain an accurate player count.



Auto Divisi tracks the voices you play and splits them into Divisi parts while retaining all the Legato, Portamento or Glissando articulations. To achieve that, it needs a brief time for analysis, which can result in noticeable latency. Playing longer articulations, you might not even notice, but with the short articulations which have a fast attack, it is more noticeable.

Auto Divisi voice handling is configured in the [Section Setup](#) view that you can access by clicking the [Setup](#) button:



Accessing the Setup View to configure Auto Divisi

## Use the Sustain Pedal

The sustain pedal can be a helpful tool for creating string performances. With all non-legato sustained articulations, pressing and holding the pedal down will hold all your subsequently played notes until the pedal is released, at which point all held notes will stop except for those that are still manually held down on the keyboard.

In STRING ENSEMBLE, the pedal takes on a special function when used in combination with polyphonic legato (Legato and Auto Divisi enabled). When polyphonic legato is enabled, the sustain pedal will allow you to more easily play large moving spread voicings (where notes are further apart on the keyboard.) To take advantage of this mode, simply hold the pedal down and play a chord. You'll notice that all the notes in this chord will sustain even after you release them from the keyboard. However, unlike with traditional sustain pedal behavior, the next chord you play will cause your first chord to automatically transition to the next using legato and/or portamento to transition all the notes naturally.

### 4.5.5 Scale

The Scale parameter is available for expressions which perform automatic pitch changes. These have to be set up to conform to the key of your composition / the segment you're working on:

## Octave Runs

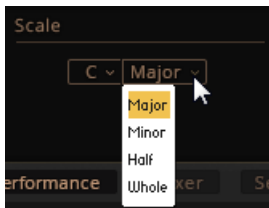
**Major** and **Minor** runs can be selected.



Scale Panel for Runs Articulation

## Trills

**Key:** Click and select the key from C-B in semi tones.



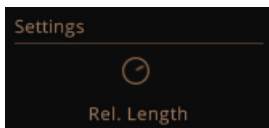
Scale Panel

- ▶ **Select Major** and **Minor** options and STRING ENSEMBLE will automatically select the appropriate interval for the selected key.
- ▶ **Select Whole** and **Half** note options and STRING ENSEMBLE will ignore the key.

### 4.5.6 Settings

Settings are available for the Harmonics Articulation.

**Rel. Length:** This extends the range of the main [Release](#) control for the Harmonics Articulation.



Settings Panel



## 5 Configuring **STRING ENSEMBLE**

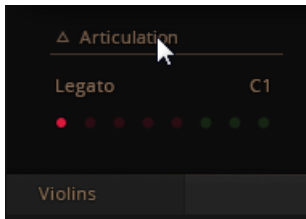
Each Instrument in **STRING ENSEMBLE** represents a default selection of Articulations assigned to Key Switches. You can configure your own collection of Articulations by means of the [Articulation Slot Setup](#) view as described in this chapter.

Once configured, you can save your work as a KONTAKT Snapshot for instant recall.

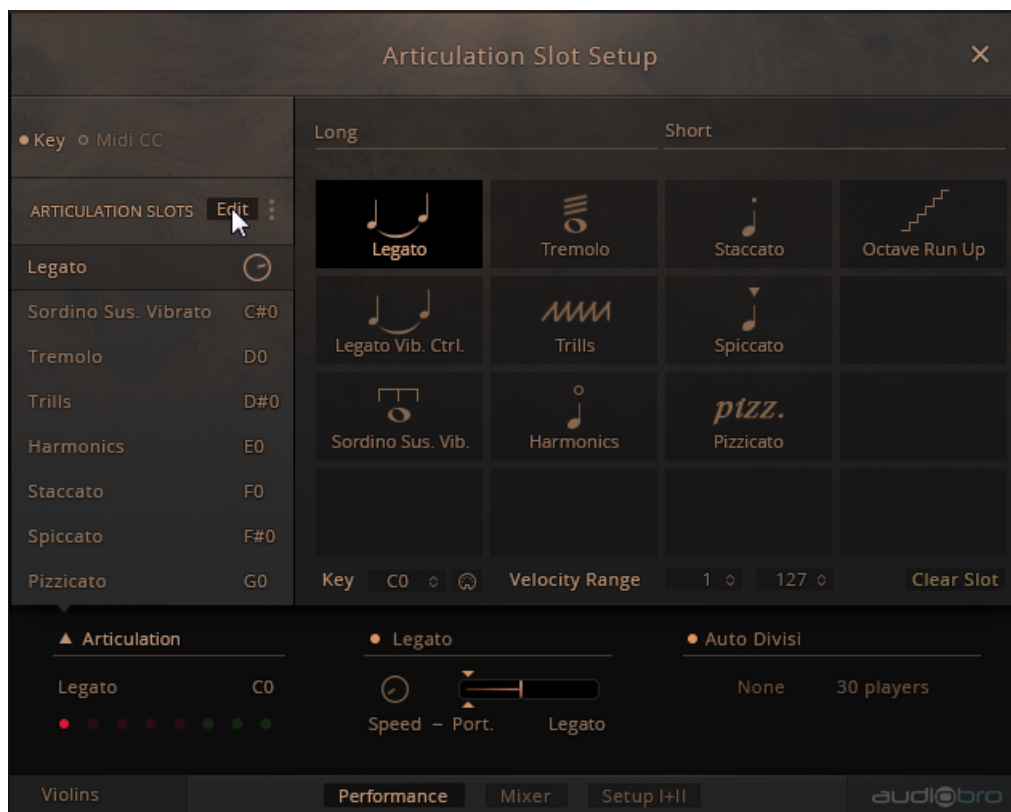
### 5.1 The Articulation Slot Setup View

To assign up to eight Articulations to either [Key Switches](#) or value ranges of a [MIDI CC](#), **STRING ENSEMBLE** provides the [Articulation Slot Setup](#) view. This is how you access it:

1. Load [Violins.nki](#).
2. While in the default Performance view, click the [Articulation](#) label in the bottom left corner. This will open the [ARTICULATION SLOTS](#) list.



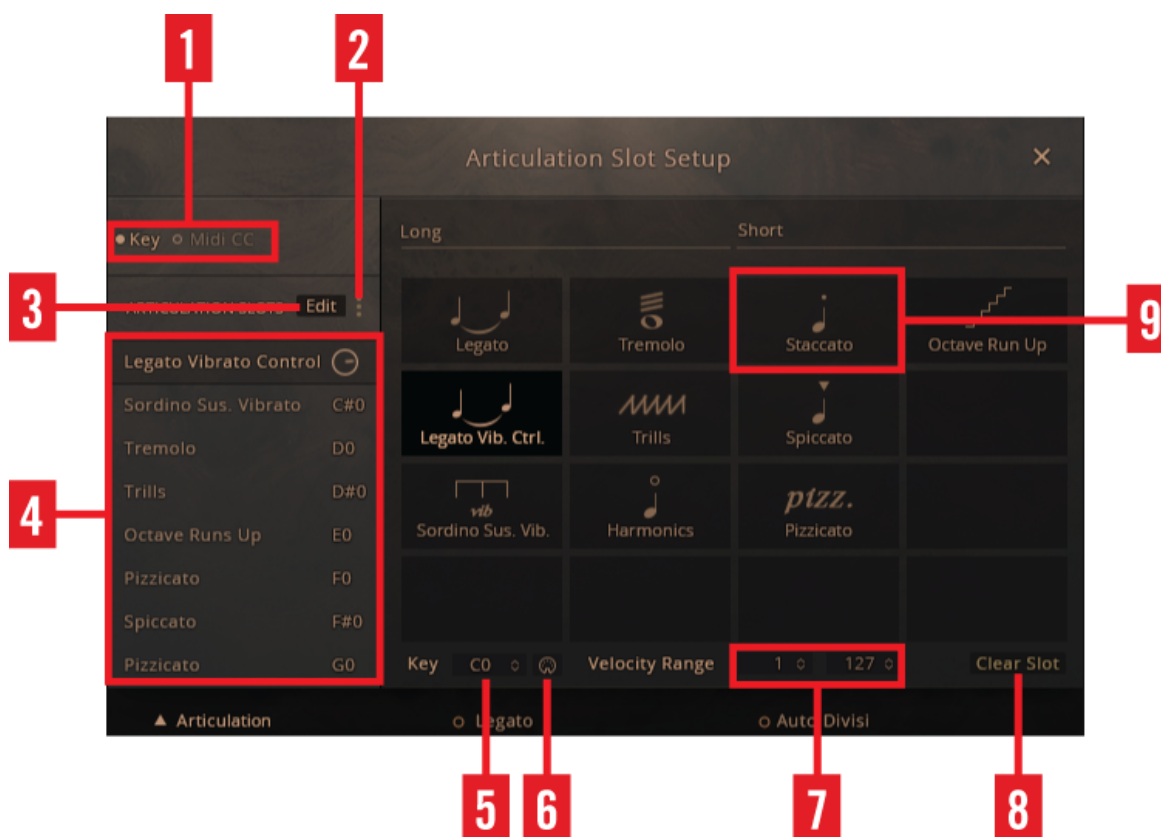
- Click the [Edit](#) button to open the full [Articulation Slot Setup](#). This view will completely cover the Performance Controls.



⇒ You can now freely configure Articulation assignments.

### 5.1.1 Overview of the Articulation Slot Setup (Key Switch)

Depending on whether you assign [Key](#) switches or [MIDI CC](#), the [Articulation Slot Setup](#) view offers slightly different sets of controls. This is an overview of the [Key Switch](#) setup.



Articulation Slot Setup view (MIDI Key)

(1) **Key/MIDI CC selector:** The eight Articulation Slots can be selected either by **Key** (MIDI note) or by **MIDI CC** events. Click the respective text label to change this setting for the entire Instrument. The active option is highlighted.

(2) **Articulation Slot Macros:** Click the three dots to open the macro menu. Depending on whether **Key** or **MIDI CC** is selected, you'll have access to different convenience features (e.g. assigning ascending key switches to the Articulation Slots automatically).

(3) **Edit Button:** Click this button to show/hide the full **Articulation Slot Setup** view.

With **Edit** inactive, you have limited access to the Articulation Slots, while still being able to move the Performance Controls with the mouse.

With **Edit** activated, you get full access to **Key/MIDI CC** assignments and a visual representation of selectable Articulations.

**(4) Articulation List:** This list holds eight Articulation Slots. Each Slot represents a **Key/MIDI CC** value, the assigned Articulation, as well as a volume control per Articulation. **Key/MIDI CC** is set globally for all Articulation Slots in an Instrument.

**(5) Key Assignment selector:** Set the MIDI **Key** which will select this Articulation. Click and drag up/down to set the **Key**.

**(6) MIDI Learn button:** This offers an alternative to manually setting the MIDI **Key**. Click this button, then press a key on your MIDI keyboard to complete the assignment.

**(7) Velocity Range selector:** Multiple Articulations can be assigned to the same MIDI **Key**. The selection is then dependent on how much force you apply when playing that key (Velocity).

- ▶ Click and drag the value in the left field to set the lowest Velocity (0-127) which will select this Articulation.
- ▶ Click and drag the right hand field to set the highest Velocity (0-127) which will select this Articulation.

**(8) Clear Slot button:** Click this button to remove the Articulation assignment from the selected slot. The samples of unassigned Articulations are automatically purged from RAM. The **Key/MIDI CC** setup is preserved when clicking the Clear Slot button.

**(9) Articulation Cell:** Each of these cells represent an Articulation. Click any of them to assign that Articulation to the selected Articulation slot.



If STRING ENSEMBLE is configured to select Articulations by Key Switches, the corresponding keys in KONTAKT's on-screen keyboard are colored according to the respective Articulation category:

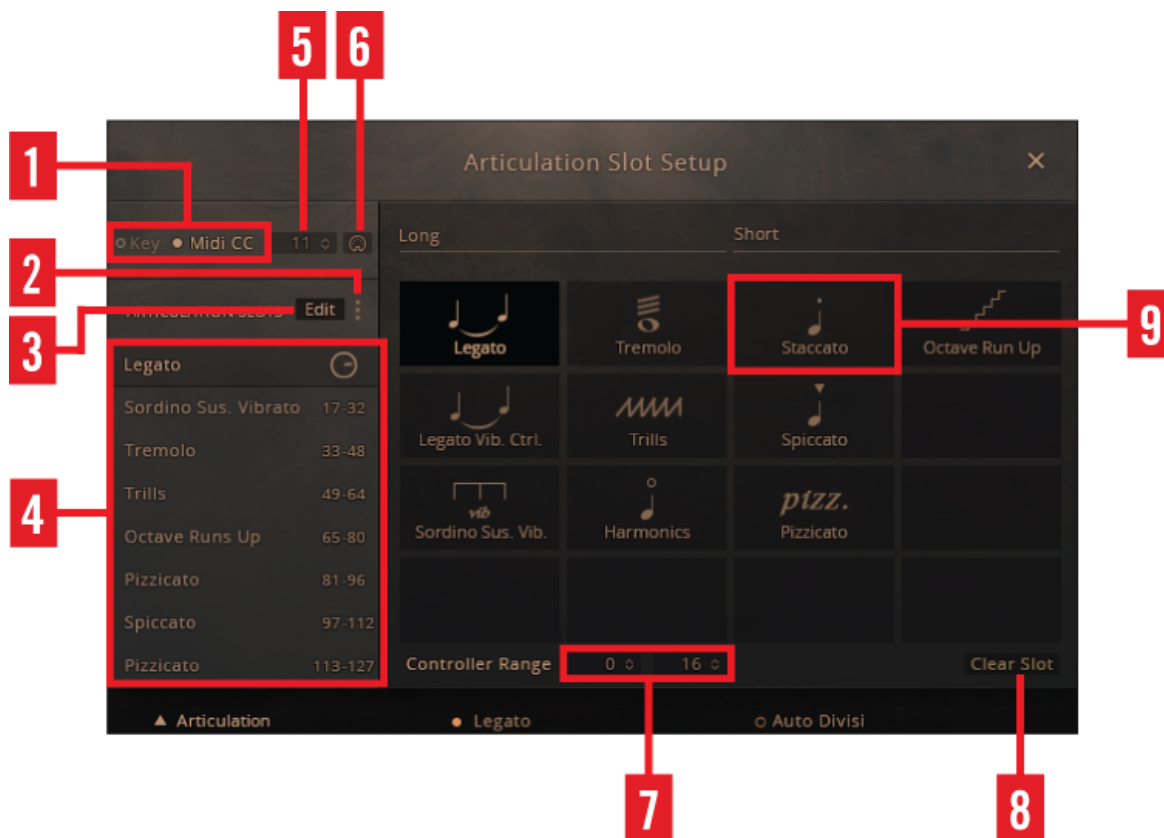
Red: Long Articulations

Green: Short Articulations

Purple: String Runs

### 5.1.2 Overview of the Articulation Slot Setup (MIDI CC)

Depending on whether you assign [Key](#) switches or [MIDI CCs](#), the [Articulation Slot Setup](#) view offers slightly different controls. This is an overview of the [MIDI CC](#) setup.



Articulation Slot Setup (MIDI CC)

(1) **Key/MIDI CC selector:** The eight Articulation Slots can be selected either by [Key](#) (MIDI note) or by [MIDI CC](#) events. Click the respective text label to change this setting for the entire Instrument. The active option is highlighted.

**(2) Articulation Slot Macros:** Click the three dots to open the macro menu. Depending on whether **Key** or **MIDI CC** is selected, you'll have access to different convenience features (e.g. assigning ascending key switches to the Articulation Slots automatically).

**(3) Edit Button:** Click this button to show/hide the full **Articulation Slot Setup** view.

With **Edit** inactive, you have limited access to the Articulation Slots, while still being able to move the Performance Controls with the mouse.

With **Edit** activated, you get full access to **Key/MIDI CC** assignments and a visual representation of selectable Articulations.

**(4) Articulation List:** This list holds eight Articulation Slots. Each Slot represents a **Key/MIDI CC** value, the assigned Articulation, as well as a volume control per Articulation. **Key/MIDI CC** is set globally for all Articulation Slots in an Instrument.

**(5) MIDI CC Assignment selector:** Click and drag up/down to set the **MIDI CC** number.

**(6) MIDI Learn button:** This offers an alternative to manually setting the **MIDI CC** number. Click this button, then move a knob, fader or button on your MIDI keyboard to send a MIDI Control message and to complete the assignment.

**(7) Controller Range selectors:** Multiple Articulations can be assigned to the same **MIDI CC**. The selection is then dependent on the **MIDI CC** value your controller sends.

- ▶ Click and drag the value in the left field to set the lowest CC value (0-127) which will select this Articulation.
- ▶ Click and drag the right hand field to set the highest CC value (0-127) which will select this Articulation.

**(8) Clear Slot button:** Click this button to remove the Articulation assignment from the selected slot. The samples of unassigned Articulations are automatically purged from RAM. The **Key/MIDI CC** setup is preserved when clicking the Clear Slot button.

**(9) Articulation Cell:** Each of these cells represent an Articulation. Click any of them to assign that Articulation to the selected Articulation slot.



If **STRING ENSEMBLE** is configured to select Articulations by Key Switches, the corresponding keys in **KONTAKT**'s on-screen keyboard are colored according to the respective Articulation category:

Red: Long Articulations

Green: Short Articulations

Purple: String Runs

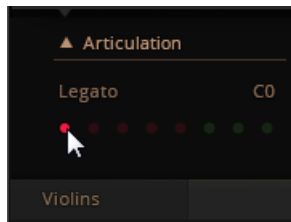
## 5.2 Configuring Articulation Slots

There are different ways for you to re-assign different Articulations to pre-defined Articulation Slots.

### Directly in the Performance View

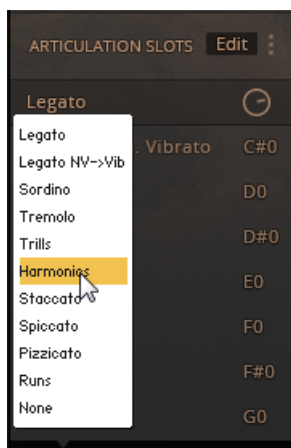
This is the fastest option if you want to assign a different Articulation to the currently selected Articulation Slot. It also allows you to stay in the distraction-free performance view.

1. Load [Violins.nki](#).
2. While in the performance view, click the leftmost Articulation Indicator in the bottom left corner. The [Legato](#) Articulation is selected.



3. Click the Articulation name. A list of available Articulations will open.

4. Select the **Harmonics** Articulation by clicking in the list.

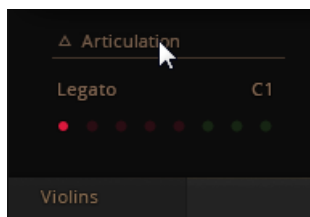


→ The Articulation is assigned to C0.

## In the Articulation Slots List

Using the **ARTICULATION SLOTS** list gives you an overview of all Articulation assignments while still letting you access the Performance controls with the mouse.

1. Load **Violins.nki**.
2. While in the performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. Select the first Articulation Slot by clicking on it in that list.
4. Click on **Legato**, the default assignment in the first Articulation Slot. A list of available Articulations will open.
5. Select **Tremolo** by clicking in the list.



→ The **Tremolo** Articulation is assigned to the first slot.

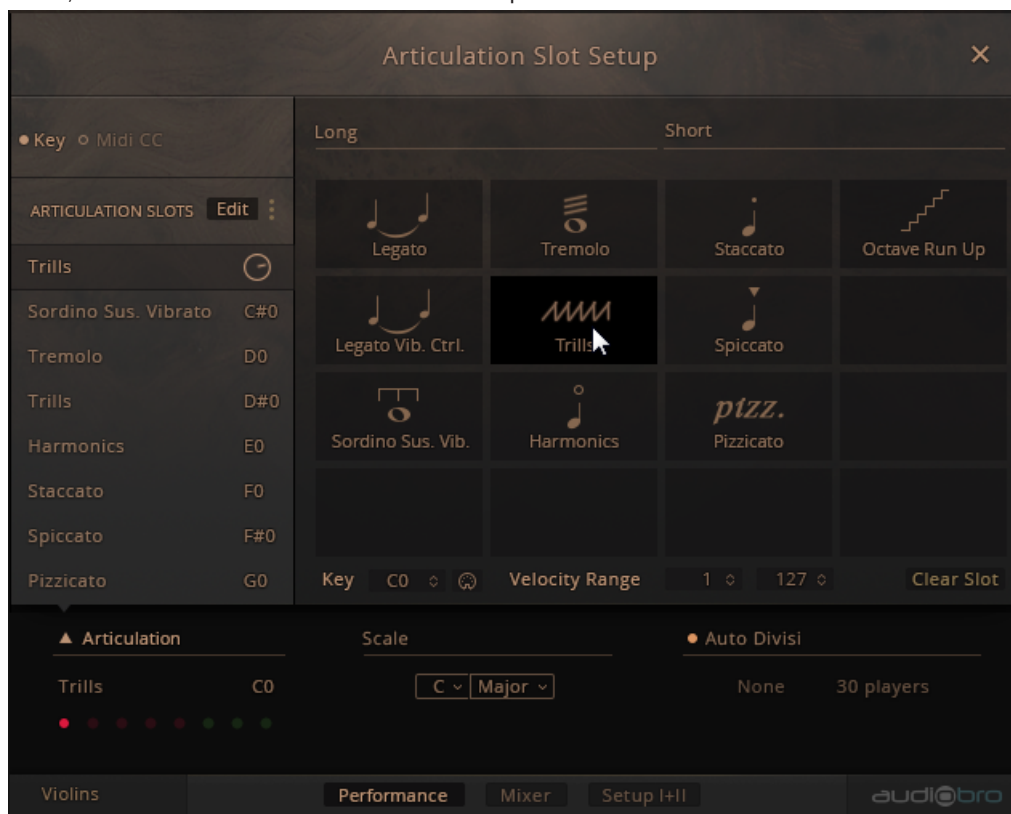
### In the Articulation Slot Setup View

The full Articulation Slot Setup view allows you to switch between MIDI **Key** and **MIDI CC** assignment for the entire KONTAKT instrument. Depending on this selection, you can freely configure advanced parameters.

1. Load **Violins.nki**.
2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.
3. In that list, click the **Edit** button. The **Articulation Slot Setup** view will open, covering the Performance Controls.



4. Here, click the **Trills** tile to select the respective Articulation.



→ The **Trills** Articulation is now assigned.



If STRING ENSEMBLE is configured to select Articulations by Key Switches, the corresponding keys in KONTAKT's on-screen keyboard are colored according to the respective Articulation category:

Red: Long Articulations

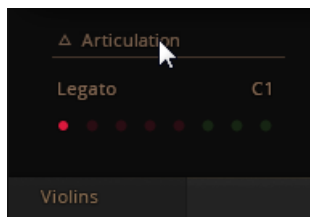
Green: Short Articulations

Purple: String Runs

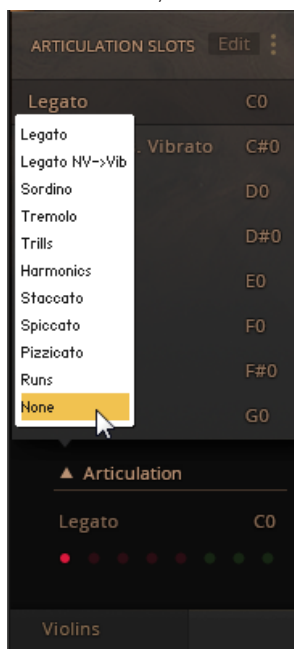
### 5.2.1 Removing Specific Articulation Assignments

To clear single Articulation assignments, use the **ARTICULATION SLOTS** list.

1. Load **Violins.nki**.
2. While in the performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. In the list, click on the Articulation name. A list of available Articulations will open.
4. Select **None**, the last entry in that list.

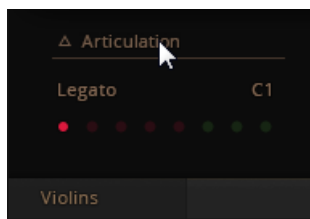


→ The assignment is removed.

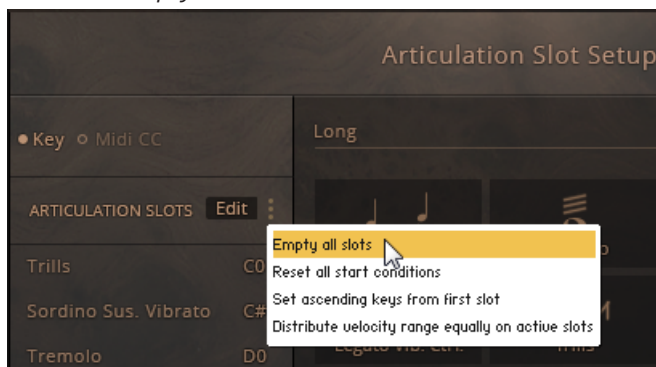
## 5.2.2 Removing all Articulations

To clear all Articulation assignments, use the Articulation Macro.

1. Load [Violins.nki](#).
2. While in the default performance view, click on [Articulation](#) in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. In the top right corner of this list, click the three vertical dots. A list of available macros will open.
4. Click on *Empty all slots*.

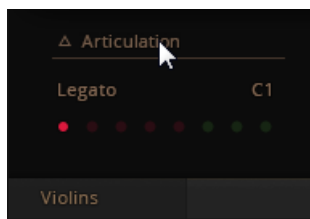


→ All assignments are deleted.

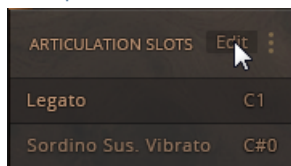
### 5.2.3 Assigning Key Switches to Articulations

Within a KONTAKT Instrument, you can assign either **Key** switches (MIDI key) or **MIDI CCs** (buttons) to select an Articulation. You can not mix **Key** and **MIDI CC** assignments within one Instrument. This is how you assign a **Key** switch.

1. Load **Violins.nki**.
2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. Click the **Edit** button in the top right corner of this list. This will open the **Articulation Slot Setup** view.



4. Make sure **Key** is selected.



5. Select the first Articulation slot by clicking in the left hand list.
6. Select the **Pizzicato** Articulation by clicking the corresponding cell in the **Articulation Slot Setup** view.

- Underneath the Articulations, click on the field labeled **Key** and drag up/down to set the MIDI Key to D0.

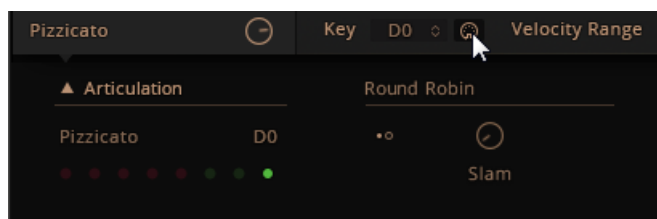


- The Articulation is now assigned to D0 on your MIDI keyboard and can be selected by pressing that key.

### Assigning the Key via MIDI Learning

As an alternative to setting the MIDI **Key** by clicking and dragging the value in the **Key** field, you can MIDI-learn the MIDI key.

- Click the MIDI connector button.



- Press the E0 key on your MIDI keyboard.

- The selected Articulation is now assigned to E0 on your MIDI keyboard and can be switched on by pressing that key.



If STRING ENSEMBLE is configured to select Articulations by Key Switches, the corresponding keys in KONTAKT's on-screen keyboard are colored according to the respective Articulation category:

Red: Long Articulations

Green: Short Articulations

Purple: String Runs

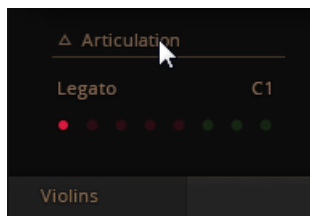
## 5.2.4 Assigning Velocity Ranges to Key Switches

By default, key switch assignments are not sensitive to velocity. You can play the MIDI note on your keyboard softly or with force, as both will activate the same assigned Articulation.

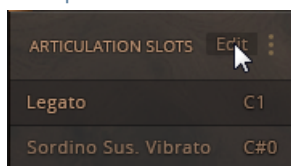
If you need to switch between different Articulations with just one MIDI key, setting up velocity ranges allows you to do just that.

### Setting Up the First Articulation

1. Load [Violins.nki](#).
2. While in the default performance view, click on [Articulation](#) in the bottom left corner. The [ARTICULATION SLOTS](#) list will open.



3. Click the [Edit](#) button in the top right corner of this list. This will open the [Articulation Slot Setup](#) view.

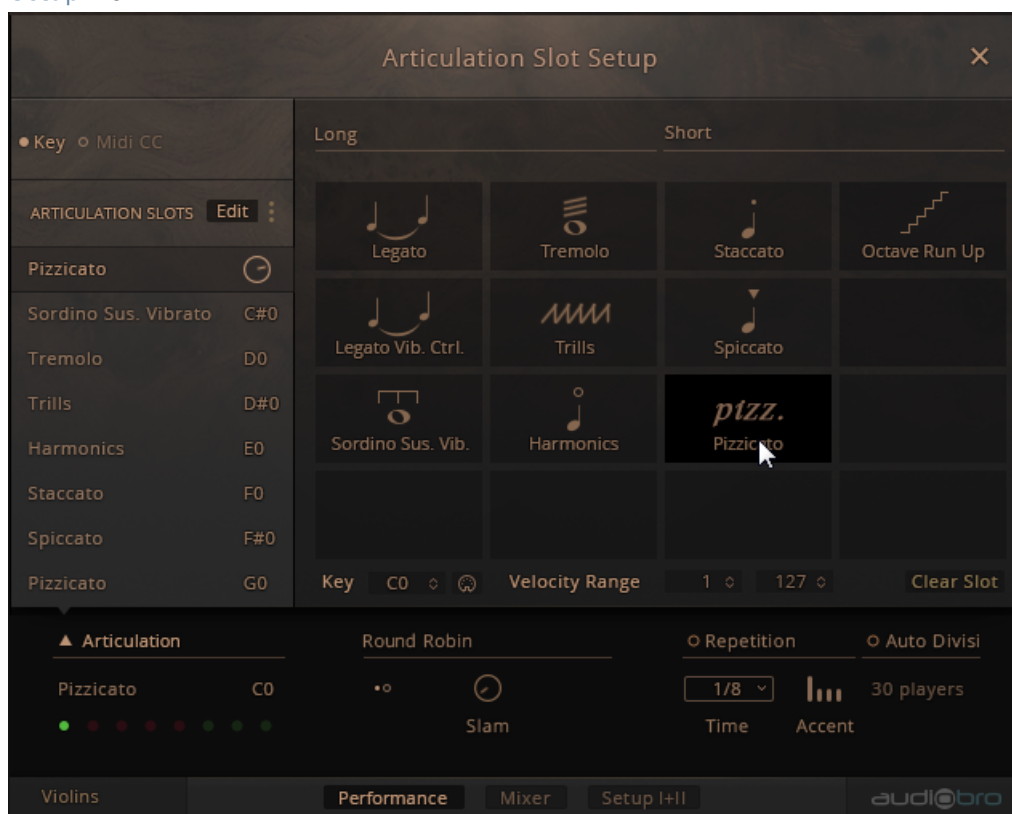


4. Make sure [Key](#) is selected.



5. Select the first Articulation slot by clicking in the left hand list.

6. Select the **Pizzicato** Articulation by clicking the corresponding cell in the **Articulation Slot Setup** view.

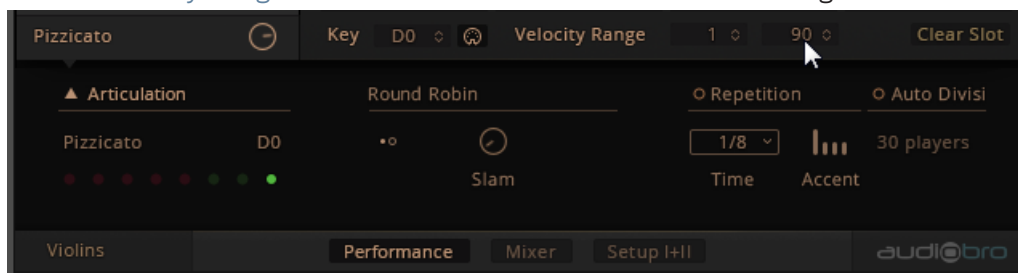


7. Underneath the **Articulations**, click on the field labeled **Key** and drag up/down to set the MIDI key to D0.





- Set the [Velocity Range](#) values to 1 in the left field and 90 in the right hand field.



## Setting Up the Second Articulation

- Select the second Articulation slot by clicking in the left hand [ARTICULATION SLOTS](#) list.

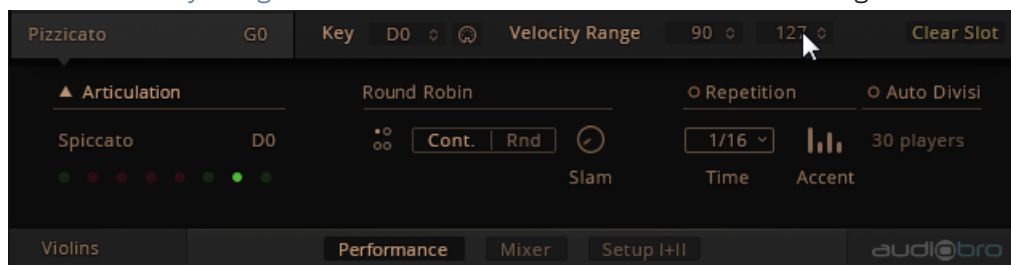
- Select the **Spiccato** Articulation by clicking the corresponding cell in the **Articulation Slot Setup** view.



- Underneath the Articulations, click on the field labeled **Key** and drag up/down to set the MIDI key to D0.



- Set the **Velocity Range** values to 90 in the left field and 127 in the right hand field.



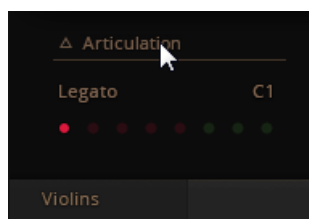
- You have now configured the D0 key on your keyboard to switch to the **Pizzicato** Articulation when pressed lightly, and to the **Spiccato** Articulation when pressed more forcefully.

### 5.2.5 Assigning MIDI CCs to Articulations

Within a KONTAKT Instrument, you can assign either **Key** Switches (MIDI key) or **MIDI CCs** (MIDI button) to select an Articulation. You can not mix **Key** and **MIDI CC** assignments within one Instrument.

Switching by **MIDI CC** is different from using **Key**, because here, you have to set up value ranges, whereas setting up velocity ranges for **key** is optional. The reason is that each instance of a **STRING ENSEMBLE** Instrument will only receive one **MIDI CC** number. So switching Articulations requires you to set up value ranges.

- Load **Violins.nki**.
- While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



- Click the **Edit** button in the top right corner of this list. This will open the **Articulation Slot Setup** view.



- Make sure **MIDI CC** is selected.



- Right next to the **MIDI CC** switch, click on the field and drag up/down to set the **MIDI CC** to **16**. By default, the available value range of 0-127 is evenly distributed across the eight Articulation slots. Unless your specific setup requires you to change it, it is recommended you keep this default.



- Select the first Articulation slot by clicking in the left hand list.
- Select the **Staccato** Articulation by clicking the corresponding cell in the **Articulation Slot Setup** view on the right.

→ The selected Articulation is now assigned to **CC 16** on your MIDI controller.

### Assigning MIDI CC via MIDI Learning

As an alternative to setting the **MIDI CC** by clicking and dragging the value in the **MIDI CC** field, you can MIDI-learn it.

- Click the MIDI Learn button next to the MIDI CC label.



2. Press a button assigned to MIDI CC 16 on your MIDI controller.
- The selected Articulation is now assigned to CC 16 on your MIDI controller.

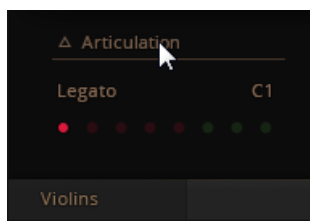
By default, the Articulation in the first Articulation slot can be switched on by sending a CC value between 0 and 15 from your host software or a MIDI controller.

## 5.2.6 Configuring a Native Instruments Controller to Send MIDI CC

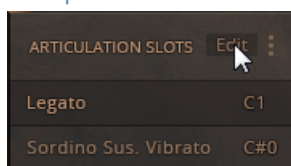
If you own any Native Instruments hardware controller, please use **Controller Editor** to configure the buttons/pads on your controller to send appropriate MIDI CC values as described in the Controller Editor Manual.

### Loading an Instrument and Setting it to Receive MIDI CC

1. Load [Violins.nki](#).
2. While in the default performance view, click on [Articulation](#) in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. Click the [Edit](#) button in the top right corner of this list. This will open the [Articulation Slot Setup](#) view.



4. Make sure [MIDI CC](#) is selected.



⇒ The Articulation Slots are set up to switch when MIDI CC values are received.

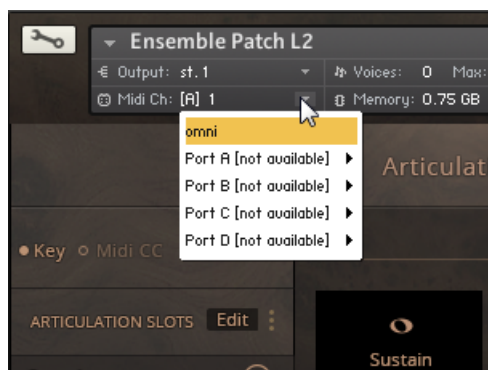
## Configuring a Native Instruments Controller to Send MIDI CC Values

In order to select either of the first two Articulation Slots, the controller has to send values within the value ranges assigned to the Articulation Slots. Slot 1 is assigned values from 0 to 16, Slot 2 is assigned values from 17 to 31.

Please set up the following values in **Controller Editor**:

	Hardware Button 1	Hardware Button 2
Type	Control Change	Control Change
Channel	1 <sup>1</sup>	1 <sup>1</sup>
Number	16	16
Mode	Trigger	Trigger
Value	10	26
Action On	Down	Down

<sup>1</sup> Channel 1 is the default for the first Instrument you load in KONTAKT. If you intend to open multiple Instruments within one KONTAKT instance, set the channel which STRING ENSEMBLE is receiving MIDI events from.



Selecting MIDI Channel

## 5.2.7 Sending MIDI CC From Your Host Software

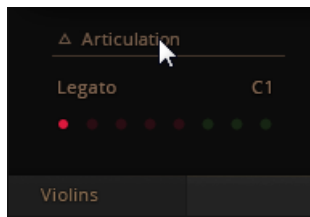


Every modern music production software allows you to automate not just track volume and panorama, but also the full spectrum of MIDI messages and plug-in automation parameters. For a more detailed description, please refer to your host's documentation.

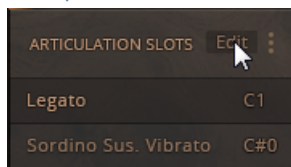
Whether you draw MIDI CC automation or record MIDI CC events from a hardware MIDI controller, in order to switch Articulations by **MIDI CC**, you need to set up **STRING ENSEMBLE** to receive **MIDI CC** messages:

### Loading an Instrument and Setting it to Receive MIDI CC

1. Load **Violins.nki**.
2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. Click the **Edit** button in the top right corner of this list. This will open the **Articulation Slot Setup** view.



4. Make sure **MIDI CC** is selected.



## Switching Articulations by MIDI CC From Your Host

In order to switch between the first two Articulation slots, write value automation for MIDI CC in your host for a track sending MIDI data to STRING ENSEMBLE.

**Slot 1** is assigned values from **0 to 16**, **Slot 2** is assigned values from **17 to 31**.



For better visibility of Articulation switches in your host, write discrete MIDI CC values (e.g. 10 for Slot 1, 26 for Slot 2) instead of continuous curves.

## 5.3 Using Macros for Automatic Assignments (Key Switches)

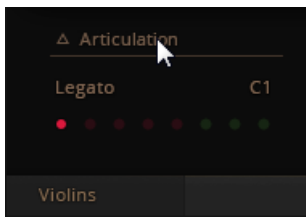
Due to its flexibility, it can take a lot of repetitive steps to set up a basic starting point for your custom configuration. This is why STRING ENSEMBLE features macro scripts which help you with certain tasks.

Depending on whether you assign [Key](#) or [MIDI CC](#), there are different macros available.

### 5.3.1 Empty all Slots

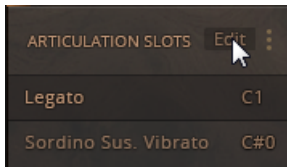
If the configuration you're about to set up is just too different from the default setup after loading an Instrument, use [Empty all slots](#) to start with a clean slate.

1. Load [Violins.nki](#).
2. While in the default performance view, click on [Articulation](#) in the bottom left corner. The [ARTICULATION SLOTS](#) list will open.





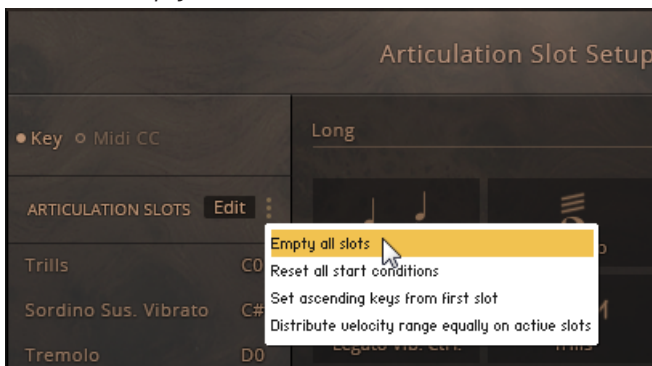
- Click the **Edit** button.



- Make sure **Key** is selected.



- In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
- Click on *Empty all slots*.



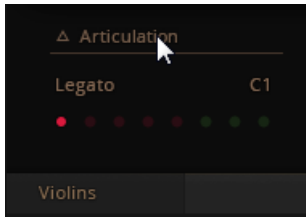
→ All assignments are deleted.

### 5.3.2 Reset All Start Conditions

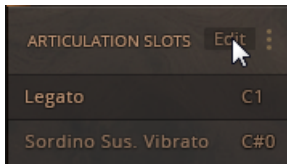
If you need to return the Instrument to its default state:

- Load **Violins.nki**.

- While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



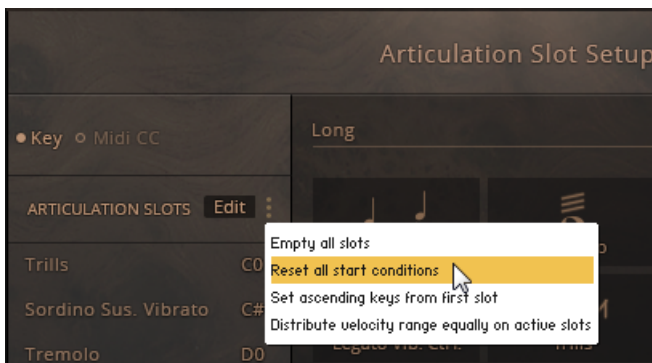
- Click the **Edit** button.



- Make sure **Key** is selected.



- In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
- Click on *Reset all start conditions*.

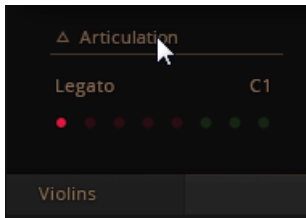


→ The Instrument's default state is loaded.

### 5.3.3 Set Ascending Keys From First Slot

By default, MIDI **Key** assignments start from **C0**, ascending in semi tones. If, for example, you'd like to move all assignments up an octave to start from **C1** instead:

1. Load **Violins.nki**.
2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



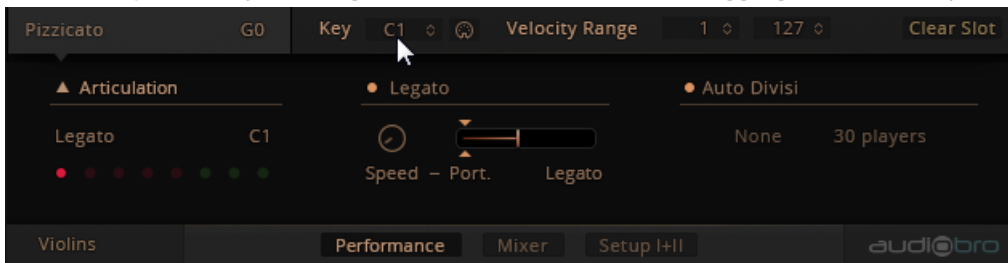
3. In this list, select the first Articulation slot by clicking on it.
4. Click the **Edit** button. The full **Articulation Slot Setup** view will open.



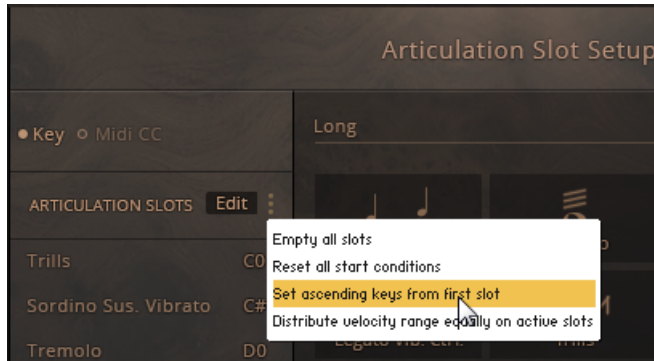
5. Make sure **Key** is selected.



6. Set the **Key** to **C1** by clicking in the field next to it and dragging the mouse up.



7. In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
8. Click on *Set ascending keys from first slot*.

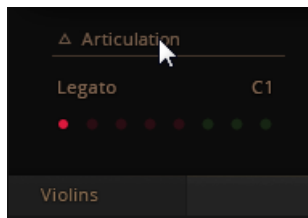


→ All slots are assigned the keys starting from C1.

### 5.3.4 Distribute Velocity Range Equally on Active Slots

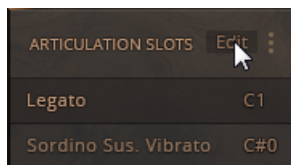
Assigning up to eight Articulations to velocity ranges of one **Key** is especially useful if you write automation in your host software and are running out of free Midi keys. This macro allows you to automatically assign equal shares of the 0 - 127 value range.

1. Load **Violins.nki**.
2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. In this list, select the first Articulation slot by clicking on it.

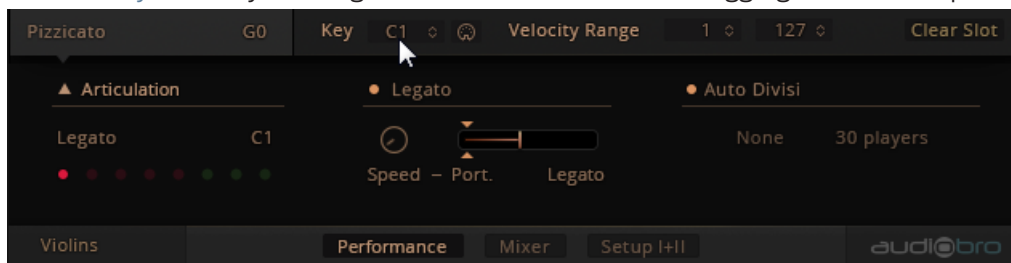
- Click the **Edit** button. The full **Articulation Slot Setup** view will open.



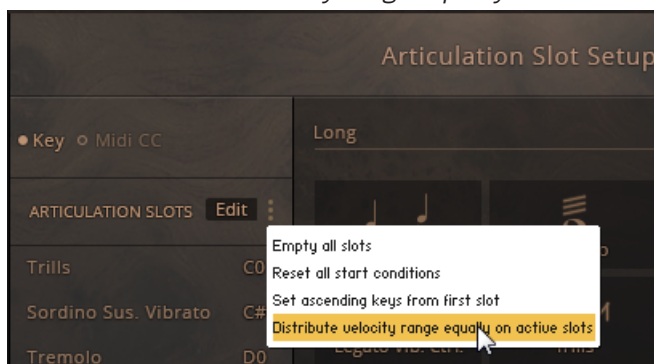
- Make sure **Key** is selected.



- Set the **Key** to C1 by clicking in the field next to it and dragging the mouse up.



- In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
- Click on *Distribute velocity range equally on active slots*.



- All active slots (slots with Articulation assignments) are assigned the same C1 key switch.  
Each slot is assigned an equal fraction of the velocity range between 0 and 127.

## 5.4 Using Macros for Automatic Assignments (MIDI CCs)

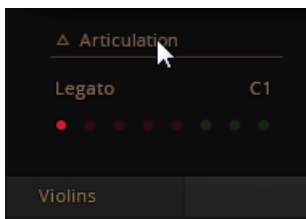
Due to its flexibility, it can take a lot of repetitive steps to set up a basic starting point for your custom configuration. This is why **STRING ENSEMBLE** features macro scripts which help you with certain tasks.

Depending on whether you assign [Key](#) or [MIDI CC](#), there are different macros available.

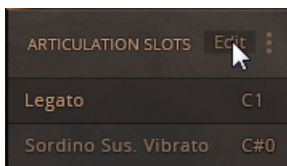
### 5.4.1 Empty All Slots

If the configuration you're about to set up is just too different from the default setup after loading an Instrument, use **Empty all slots** to start with a clean slate.

1. Load [Violins.nki](#).
2. While in the default performance view, click on [Articulation](#) in the bottom left corner. The [ARTICULATION SLOTS](#) list will open.



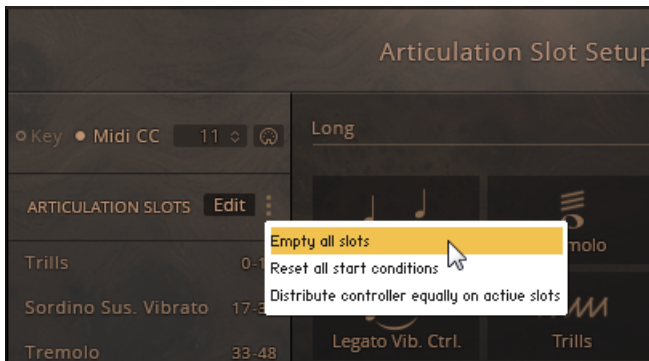
3. Click the [Edit](#) button.



4. Make sure **MIDI CC** is selected.



5. In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
6. Click on *Empty all slots*.

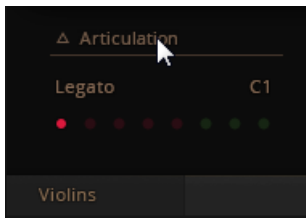


→ All assignments are deleted.

## 5.4.2 Reset All Start Conditions

If you need to return the Instrument to its default state:

1. Load [Violins.nki](#).
2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



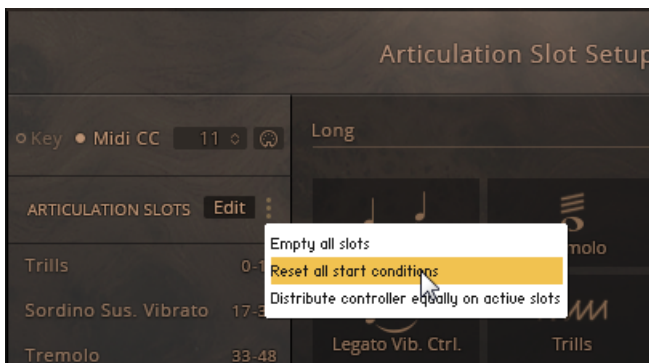
- Click the **Edit** button.



- Make sure **MIDI CC** is selected.



- In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
- Click on *Reset all start conditions*.



→ The Instrument's default state is loaded.

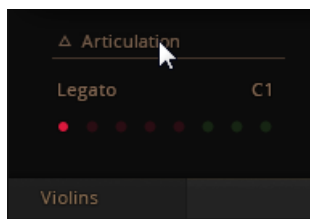
### 5.4.3 Distribute Controller Equally on Active Slots

Assigning **MIDI CCs** to buttons or pads is a good way of avoiding conflicts in more complex MIDI controller setups.

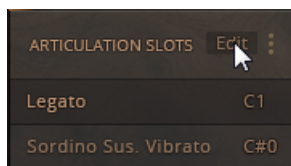
- Load **Violins.nki**.



- While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



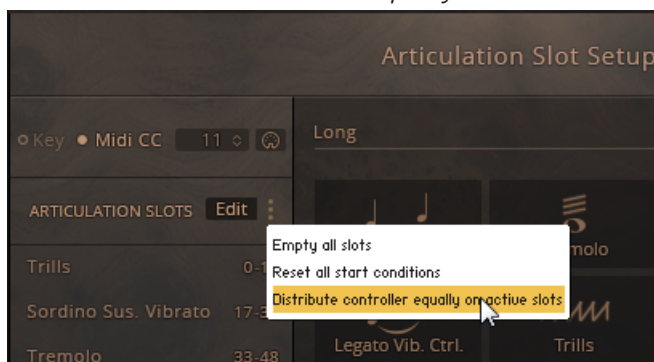
- In this list, select the first Articulation slot by clicking on it.
- Click the **Edit** button. The full **Articulation Slot Setup** view will open.



- Make sure **MIDI CC** is selected.



- In the top right corner of the **ARTICULATION SLOTS** list, click the three vertical dots. A list of available macros will open.
- Click on *Distribute controller equally on active slots*.



- The MIDI CC value range from 0-127 is divided by the number of active slots and distributed evenly.



If you load any of the KONTAKT Instruments included in STRING ENSEMBLE and set it to receive MIDI CC, you'll find that the controller values are already assigned this way. Use this macro to quickly set up a new configuration when you assign less than the full eight Articulation Slots, or after you cleared all assignments in order to start from scratch.

## 6 KONTAKT Snapshots

Snapshots offer a way of saving variations of any KONTAKT Instrument for easy recall.

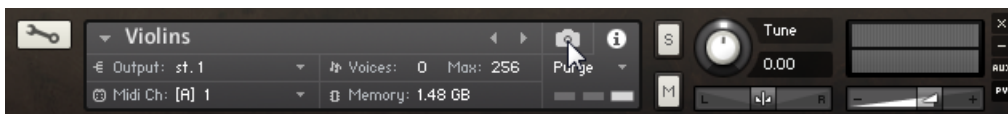
STRING ENSEMBLE, for example, allows you to create your own mix from **CLOSE**, **MID** and **FAR** microphone positions and apply effects like **EQ**, **REVERB**, and **COMP**.

With KONTAKT Snapshots, you can create any number of different mixes for the same Instrument, save them in the new **.nksn** file format and re-use them in your next project or share these Snapshots across your computers. You can even share them with other users who own the same KONTAKT Library.



STRING ENSEMBLE doesn't come with Snapshots, so in order to demonstrate the full feature set, we'll save a Snapshot first.

- ▶ Access the Snapshot View by clicking the camera icon in the Instrument Header
- ▶ Switch back to the familiar Info View with its **Input / Output** configuration options by clicking the **i** icon.



Accessing the Snapshot View

### 6.1 Saving a User Snapshot

Let's start exploring Snapshots with saving your own. By loading one of the supplied Instruments and adjusting some of its parameters, you will end up with a sound which is distinct enough for you to want to keep it.

#### Setting Up a Unique Mix

1. In the **Libraries** Tab, load the **Violins.nki** Instrument. Play a few notes on your MIDI keyboard to get familiar with the ensemble's sound.

2. In the **Mixer** Tab, activate the **CLOSE**, **MID** and **FAR** microphone positions by clicking the respective labels. De-activate the **STEREO** mix afterwards.

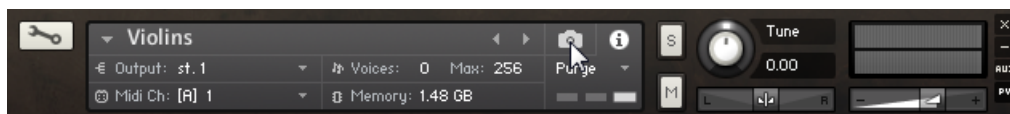


3. Click and drag the **CLOSE** and **MID** volume faders up and the **FAR** volume fader down to set up a mix with little of the recorded ambience.
4. Activate the reverb by clicking the small dot to the left of the **REVERB** label.

## Saving the Mix

Now let's save this new sound as a Snapshot for convenience.

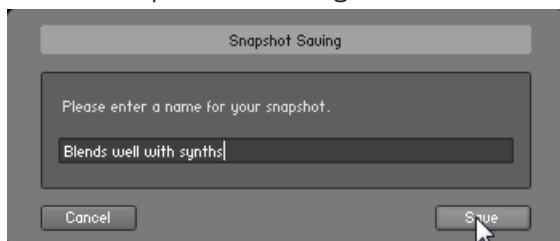
1. Click the camera icon in the Instrument Header. This will switch the Header to the Snapshot View.



2. Here, click the floppy disk icon to open the **Snapshot Saving** dialog.



3. Enter a Snapshot name (e.g. *Blends well with synths*) and click **Save**.



→ The Snapshot is saved and added to the Snapshot Menu.

All User Snapshots are automatically stored in the default User Content folder. This is where the SYMPHONY SERIES STRING ENSEMBLE Snapshot you just created will be stored:

- **On Mac OS X:** *Macintosh HD/Users/Your Name/Documents/Native Instruments/User Content/Symphony Series String Ensemble/String Ensemble/Blends well with synths.nksn*
- **On Windows:** *C:\Users\Your Name\My Documents\Native Instruments\User Content\Symphony Series String Ensemble\String Ensemble\Blends well with synths.nksn*



You can transfer any of your Snapshots to another computer by copying the respective Snapshot files.



Please make sure you include your Documents / My Documents folder in your regular data backups.

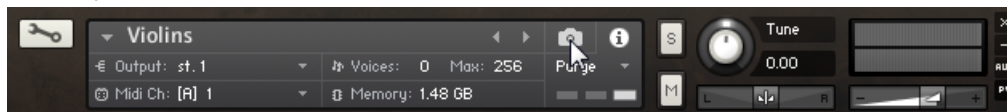
## 6.2 Loading a Snapshot From the Snapshot Menu

If you need to recall a specific sound for recurring use in the studio or for live playing, Snapshots give you an easy way of doing just that.

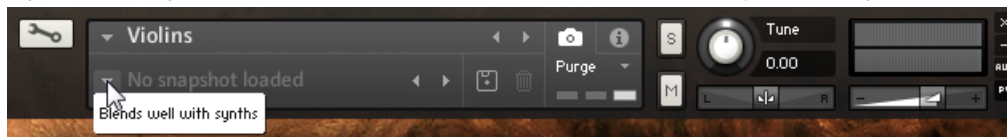
Let's get to know this feature by loading a Snapshot from the Instrument Header's Snapshot Menu. We assume here that you saved the [Blends well with synths](#) Snapshot as described in the [6.1, Saving a User Snapshot](#) section.

### Load a User Snapshot

1. In the [Libraries](#) Tab, load the [Violins.nki](#) Instrument. Play a few notes on your MIDI keyboard to get familiar with the ensemble's sound.
2. Click the camera icon to switch the Instrument Header to the Snapshot View. By default, no Snapshot is loaded.



- Open the drop-down menu and select the **Blends well with synths** Snapshot.



- The **Blends well with synths** Snapshot is loaded.



Alternatively, when no Snapshot is loaded, click the Next Button after loading the String Ensemble Instrument to achieve the same result.

## 6.3 Loading Snapshots From the File System

KONTAKT supports two ways of loading Snapshot files (.nksn):

- Dragging and dropping a Snapshot file from the Finder / Explorer onto the Rack
- Loading via double-click in Finder (Mac OS X) or Explorer (Windows)

This allows you to take your favorite Snapshots to the studio on a flash drive or send them attached to an e-mail and load them from your Desktop without altering the installation on the studio computer.

### Drag and Drop

In order to load a Snapshot from any disk, use Filer / Explorer to drag an .nksn file from its current location onto an empty area of the Rack. KONTAKT will load a new instance of the corresponding Instrument with that Snapshot.

If you drag a Snapshot onto an active Instrument in the Rack instead, that Instrument will be replaced by the Instrument loaded from the Snapshot.

Snapshots you open are not automatically saved to the default location.



Please note, the Next/Previous buttons can only skip through Snapshots located in the Factory Snapshots and the User Content folder

## Double-click

Double-clicking a Snapshot file in Finder (Mac OS X) or Windows Explorer inserts a new Instrument instance in KONTAKT.

## 6.4 Deleting a User Snapshot

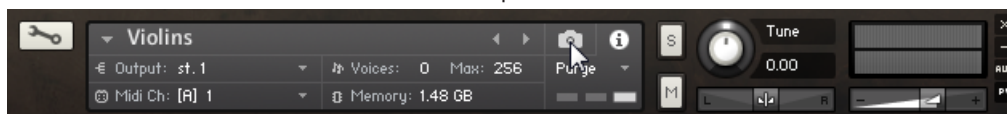
In order to keep things tidy in the Snapshot Menu, you can delete any Snapshots you saved when you feel you don't need them anymore. Keep in mind that Snapshots are saved on a per-Instrument basis. So in order to delete a Snapshot in KONTAKT, you have to load it first.



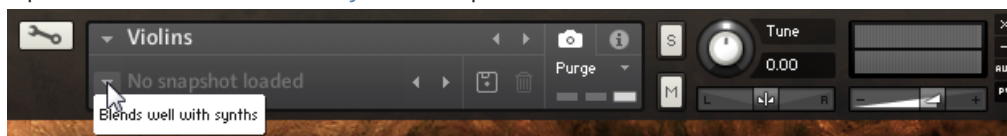
Note that you can only delete User Snapshots. All KOMplete Factory Snapshots are read-only. In order to follow the steps described here, you have to have saved a Snapshot first as detailed in the [↑6.1, Saving a User Snapshot](#) section

To demonstrate how deletion of Snapshots works, we'll delete the [Blends well with synths](#) Snapshot saved in that section.

1. In the [Libraries](#) Tab, load the [Violins.nki](#) Instrument.
2. Click the Camera icon to access the Snapshot View.



3. Open the [Blends well with synths](#) Snapshot.



4. Click the trash bin icon in the Instrument Header.



5. Confirm deletion of the Snapshot in the dialog which pops up.

- The Snapshot file is now erased from the folder on your hard disk as well as removed from the Snapshot Menu.



## 7 Audio Mix-down

### 7.1 The Microphone Mixer View

In addition to a full production-ready **STEREO** mix of all microphones used in the recording of the strings sections, STRING ENSEMBLE offers **CLOSE**, **MID** and **FAR** microphone recordings. These are phase-aligned so mixing any combination of microphone positions will be free from phase cancellation issues.

Impulse responses capturing the ambience of the original recording are included in the **RE-VERB** panel in the **Cathedral** category.



The **STEREO** mix-down is a mixture of signals from all individual microphone positions. If you're going to activate any of the **CLOSE**, **MID** and **FAR** positions, it is recommended you deactivate the **STEREO** track.

Deactivating unnecessary microphone positions saves processing power and lowers the RAM consumption.



The Microphone Mixer

**(1) Microphone Position On/Off switch:** Click the indicator to activate either (combinations of) distinct microphone positions or the **STEREO** mix. A thin ring shows it's inactive, a solid dot means it's active. Either one microphone position or the **STEREO** mix has to be active at any time.

**(2) Microphone Position Panorama:** Click the slider and drag it to the left or right to set the respective microphone position's balance in the stereo panorama.

**(3) Microphone Position Volume fader:** Click and drag the fader to set the respective microphone position's level.

**(4) Microphone Position Output selector:** Click to select an individual output routing per microphone position. This is only available if KONTAKT is set up as a multi-out instrument or multi-out plug-in.

**(5) Effects On/Off:** Click any of these indicators to activate or deactivate the corresponding effect. A thin ring shows it's inactive, a solid dot means it's active.

**(6) Effects Selectors:** Click any of these labels to select the respective effect and show its effects parameters in a dedicated panel.

**(7) Effects Controls:** adjust the selected effect's parameters here.

**(8) Transfer Settings drop-down:** Click to save the current Mixer configuration. Then go to another STRING ENSEMBLE Instrument and there, click the [Transfer Settings](#) drop-down to load the configuration.

## 7.2 Refining the Master Mix

The mix of the selected microphone positions can be processed with a number of integrated effects to help it blend better with the other instruments in your virtual orchestra.

Since the recordings have a very refined and production-ready sound, these effects aren't intended as corrective tools, but rather meant to put the finishing touches on an otherwise great mix.



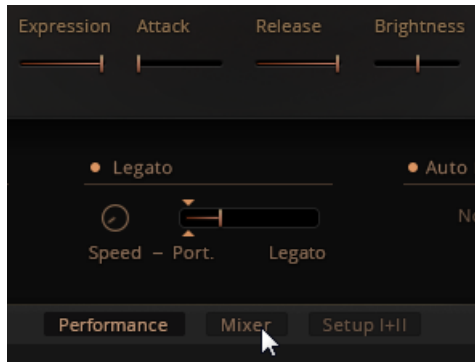
The default **STEREO** mix is recommended for most situations, because it is the most resource-efficient option. It is a mix-down of the CLOSE, MID and FAR microphone positions.

### 7.2.1 Applying EQ

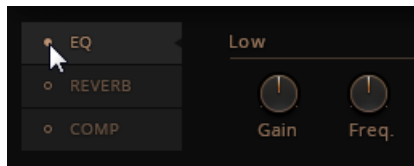
In a busy composition, instruments from different groups often overlap, resulting in a muddy, crowded mix lacking definition and transparency. Attenuating the non-essential frequencies and boosting the characteristic frequencies per instrument section helps clean up the mix.

1. Load [Violins.nki](#).

- Click the Mixer label to open the [Microphone Mixer](#) view.



- Click the [EQ](#) label to select the Equalizer panel.
- Click the small indicator dot next to the label to activate / bypass the Equalizer. A thin ring shows it's inactive, a solid dot means it's active.



- Adjust the [Low](#), [Mid](#) and [High](#) controls as needed.

## The EQ Controls

The EQ offers parametric [Low](#) and [High](#) bands with [Gain](#) and [Freq](#) controls. The [Mid](#) band is fully parametric with [Gain](#) and [Freq](#) controls plus adjustable [BW](#) (bandwidth) control.



**Gain:** Boost or attenuate the [Low](#) EQ band. The EQ is a bell curve type with 18 dB of boost or cut.

**Freq:** Set the center frequency of the [Low](#) EQ band anywhere between 20 Hz and 20 kHz.

**BW:** Set the [Mid](#) band's bandwidth between 1/3 octave and 3 octaves.



These controls affect the frequency balance of your KONTAKT Instrument's Master Mix. If you need to adjust EQ per instrument section, load the Individual Instruments instead of the Ensemble Instrument.

### 7.2.2 Applying REVERB

Impulse responses in the REVERB are audio recordings that capture the way sounds naturally reflect and decay in different environments.

STRING ENSEMBLE includes 104 Impulse Responses; four Cinematic ambiences plus 10 further categories with 10 impulses each.

Most of these Impulse Responses were recorded by Soundiron for SYMPHONY SERIES BRASS ENSEMBLE in a variety of unique real-world locations, such as cathedrals, churches, classrooms, halls, garages, military bunkers, tunnels, studios and more. However, some Impulses are custom sound-designed sound effects used purely for creating unique special effects.

The Impulse Responses in the Cinematic category were provided by Audiobro specifically to create a filmic sound for String instruments.

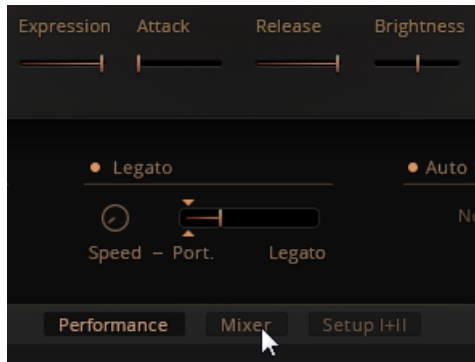


Use caution when using these Effects Impulses, as they can create strong resonant effects and feedback when mixed at high volumes in some cases.

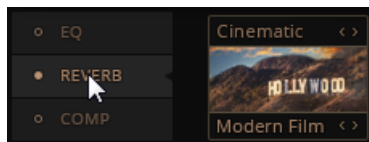
#### Activating the Reverb

1. Load [Violins.nki](#).

- Click the Mixer label to open the [Microphone Mixer](#) view.



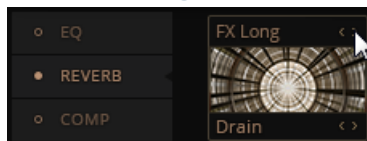
- Click the [REVERB](#) label to select the [REVERB](#) panel.
- Click the small dot next to the label to activate / bypass the [REVERB](#).



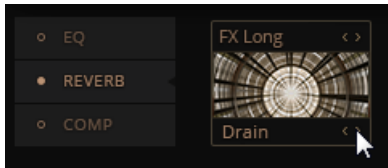
→ The [REVERB](#) is activated. A thin ring shows its inactive state, a solid dot means it's active.

## Selecting an Impulse Response

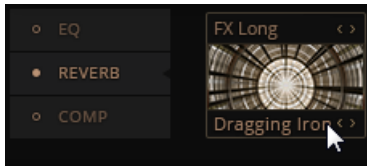
- Click the right arrow next to the **category name** above the preview image to cycle through the available categories.
- Select [FX Long](#).



- Click the right arrow next to the **Impulse Response name** below the preview image to select the actual Impulse Response.



- Select **Dragging Iron**.



- The **Dragging Iron** Impulse Response is applied to the Master Mix in **Violins.nki**, affecting all string sections equally.

## The REVERB Controls



Reverb parameters should not be automated. Otherwise, audio drop-outs may occur.



**Size:** Stretches or compresses the impulse response audio file. This creates the illusion of the room size changing.

**Delay:** Introduces a pre-delay before the reverberation.

- ▶ Decrease the pre-delay to embed instruments in the reverb, creating a distant, 'roomy' sound.

- ▶ Increase the pre-delay to separate instruments from reverb, creating a close, 'direct' sound.

**Filter HiPass:** Removes low frequencies from the reverb signal to avoid boominess.

- ▶ Click and drag up to raise the frequency below which signal is attenuated.

**Filter LoPass:** Removes high frequencies from the reverb signal to avoid excessive brightness and to help it blend in naturally.

- ▶ Click and drag down to lower the frequency above which signal is attenuated.

**Mix Amount:** Blends anywhere between no reverb at all and just the reverb.

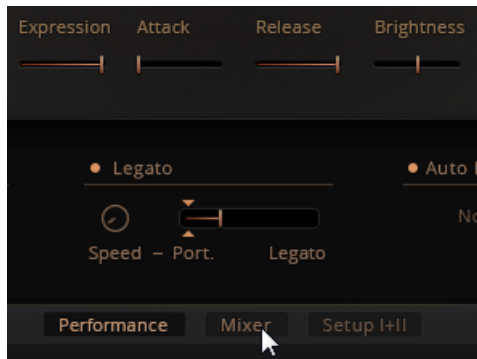
- ▶ Click and drag down to mix in less reverb, drag up to add more reverb.

### 7.2.3 Applying COMP

The Compressor is helpful to reduce the dynamic range of an Instrument in case the loudest passages mask other instruments in your arrangement.

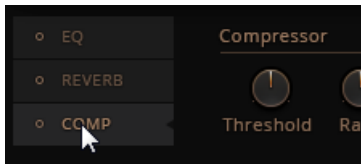
#### Activating the COMP

1. Load [Violins.nki](#).
2. Click the [Mixer](#) label to open the [Microphone Mixer](#) view.

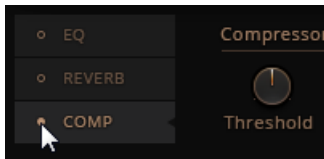




- Click the **COMP** label to select the **Compressor** panel.



- Click the small dot next to the **COMP** label to activate the Compressor.



→ The Compressor is activated. A thin ring to the left of each label shows its inactive state, a solid dot means it's active

## The COMP Controls



**Threshold:** Sets the level above which compression occurs.

**Ratio:** Determines how strong the compression is. At a **Ratio** of **2:1**, a signal which exceeds the **Threshold** by **6dB** is reduced to **3dB** above the **Threshold**.


**Attack:** Determines how quickly the compressor starts reducing the signal after the level exceeds the **Threshold**.

**Release:** Determines how quickly the compressor stops reducing the signal after the level falls below the **Threshold**.

### 7.3 Close, Mid and Far Microphone Positions

For each string section, a **CLOSE**, **MID** and **FAR** position were recorded. Each of these represent a mix-down of an array of microphones to achieve a spacious, natural sound. For convenience, an additional **STEREO** mix-down is provided.

When using **STRING ENSEMBLE** with products outside the **SYMPHONY SERIES**, mixing the three available microphone positions will give you greater flexibility in creating a sound which will blend well with the other products.

 Every activated microphone position requires additional RAM and processing power. De-activate all positions you don't use.

#### About Microphone Positions

Microphone Position	Stereo Width	Stereo Panning
CLOSE	Spot Microphones	Panned to orchestral position
MID	100% Wide	Conductor's perspective, panned
FAR	100% Wide	Ambient microphones, little directivity
STEREO	100% Wide	Mix of MID and CLOSE microphones, panned to orchestral position

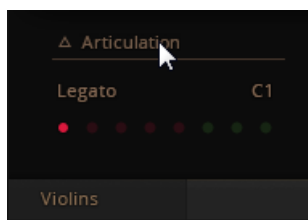
### 7.4 Balancing Articulation Volumes

Although great care has gone into balancing the perceived loudness of a section's Articulations, in context of other instrumentation and the actual composition, you may find an Articulation sounding too loud or too quiet.

Instead of having to automate the volume around this note, **STRING ENSEMBLE** allows you to adjust the volume of each Articulation Slot individually. That way, you could even assign the same Articulation to multiple Slots with different volume settings.

1. Load [Violins.nki](#).

2. While in the default performance view, click on **Articulation** in the bottom left corner. The **ARTICULATION SLOTS** list will open.



3. In this list, click the **Edit** button. A volume knob is shown for the selected Articulation.
4. To adjust an Articulation's volume, click it once to select and then click and drag the level knob.



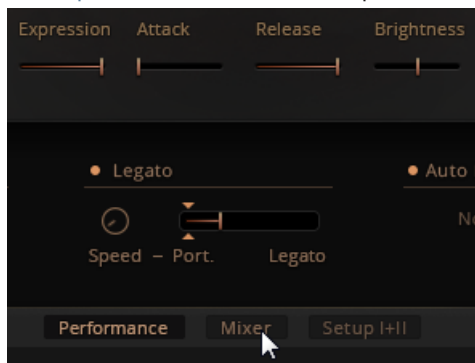
→ Only the specific Articulation's volume is adjusted.

## 7.5 Transferring Mixer Settings Between Different Instruments

When you set up your own mix of microphone positions in one string section, you'll want to apply the same mix to all string sections for a consistent ensemble sound. STRING ENSEMBLE offers an easy way of transferring these settings to the other sections.

### Saving Mixer Settings

1. Load [Violins.nki](#).
2. While in the default performance view, click on [Mixer](#) at the bottom of the screen. The [Microphone Mixer](#) view will open.



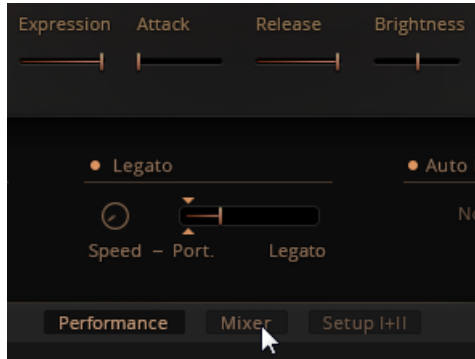
3. Adjust parameters in this view to create your custom mix.
4. In the top right corner, click [Transfer Settings](#). A drop-down menu will open.
5. Select *Save current mixer setting*.



→ The mixer settings from the Violins section is now saved.

## Recalling Mixer Settings

1. Load [Violas.nki](#).
2. While in the default performance view, click on [Mixer](#) at the bottom of the screen. The [Microphone Mixer](#) view will open.



3. In the top right corner, click [Transfer Settings](#). A drop-down menu will open.
4. Select *Load mixer setting*.



→ The mixer settings from the Violins section are applied to the Violas section.

## 8 Performance Optimization

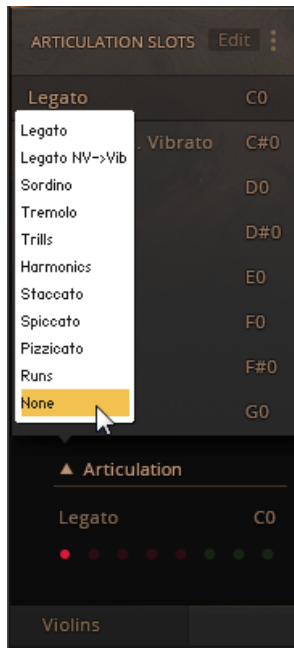
Highly realistic, sampled Instruments like STRING ENSEMBLE are demanding in terms of both RAM and processing power. Even if you own a high end computer, please read the following tips carefully to get the most out of your system.

### 8.1 General Advice

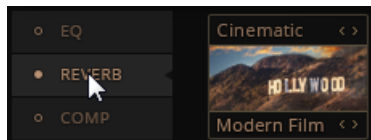
- Use the Ensemble Instrument when you just want to add a string pad to your arrangement.
- Use Individual Section Instruments (e.g. [Violins.nki](#), [Violas.nki](#)) if you need any of these specific features:
  - True Legato and Portamento
  - A section's full tonal range
  - Manual control over Divisi

## 8.2 Project Economy

- Only load Articulations which are actually used in the musical piece. For un-used Articulation assignments, select *None*.



- Try to keep usage of the **REVERB** to a minimum. If possible, use your host software's Send Busses (AUX Sends, FX Sends) to share reverb between different instances of KONTAKT.



## 8.3 Instrument Economy

- Only activate the microphone positions you actually need. **STEREO** will always be less demanding than mixing the **CLOSE**, **MID** and **FAR** positions.



All microphone positions deactivated except for STEREO

- Runs Articulations employ Time Stretching. Deactivate them if you can play a phrase with Legato notes instead.
- If you don't need Legato, deactivate it.
- If you don't need both, Legato and Portamento transitions, move the Port./Legato slider all the way to the right or all the way to the left.



# 9 Technical Specs

## 9.1 Recorded Tonal Range

	Basses	Cellos	Violas	Violins
Recorded Tonal Range	C0–C#3	C1–G4	C2–F5	G3–E6

## 9.2 Microphone Positions

Microphone Position	Stereo Width	Stereo Panning
CLOSE	Spot Microphones	Panned to orchestral position
MID	100% Wide	Conductor’s perspective, panned
FAR	100% Wide	Ambient microphones, little directivity
STEREO	100% Wide	Mix of MID and CLOSE microphones, panned to orchestral position

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## 10 Credits

**Produced By Audiobro:** Andrew Keresztes, Sebastian Katz

**Scripting and UI Integration:** Sebastian Katz, Gabor Valasek

**Editing:** Andrew Keresztes, Sebastian Katz

**Mixing and Mastering:** Andrew Keresztes

**Instruments Programming and Mapping:** Andrew Keresztes, Sebastian Katz

**Audiobro Beta Testers:** Andrew Keresztes, Sebastian Katz, Craig Sharmat, Willem Van den Broeck, Jesper Goor Pedersen, Nathan Furst, Brian Ralston, Kays Alatrakchi, Frederick Russ

**Session directed by:** Andrew Keresztes, Sebastian Katz

**Session Producer:** Andrew Keresztes

**Concept and Design:** Frank Elting

**User Interface Design:** Fabian Ruf

**Quality Assurance:** Bymski

**Artwork:** Yvonne Hartmann

**Finalization and Encoding:** Carlos Ruiz

**Product Management:** Tobias Menguser, Christian Wachsmuth, Linda Klimesch